

ATHLETIC JOURNAL

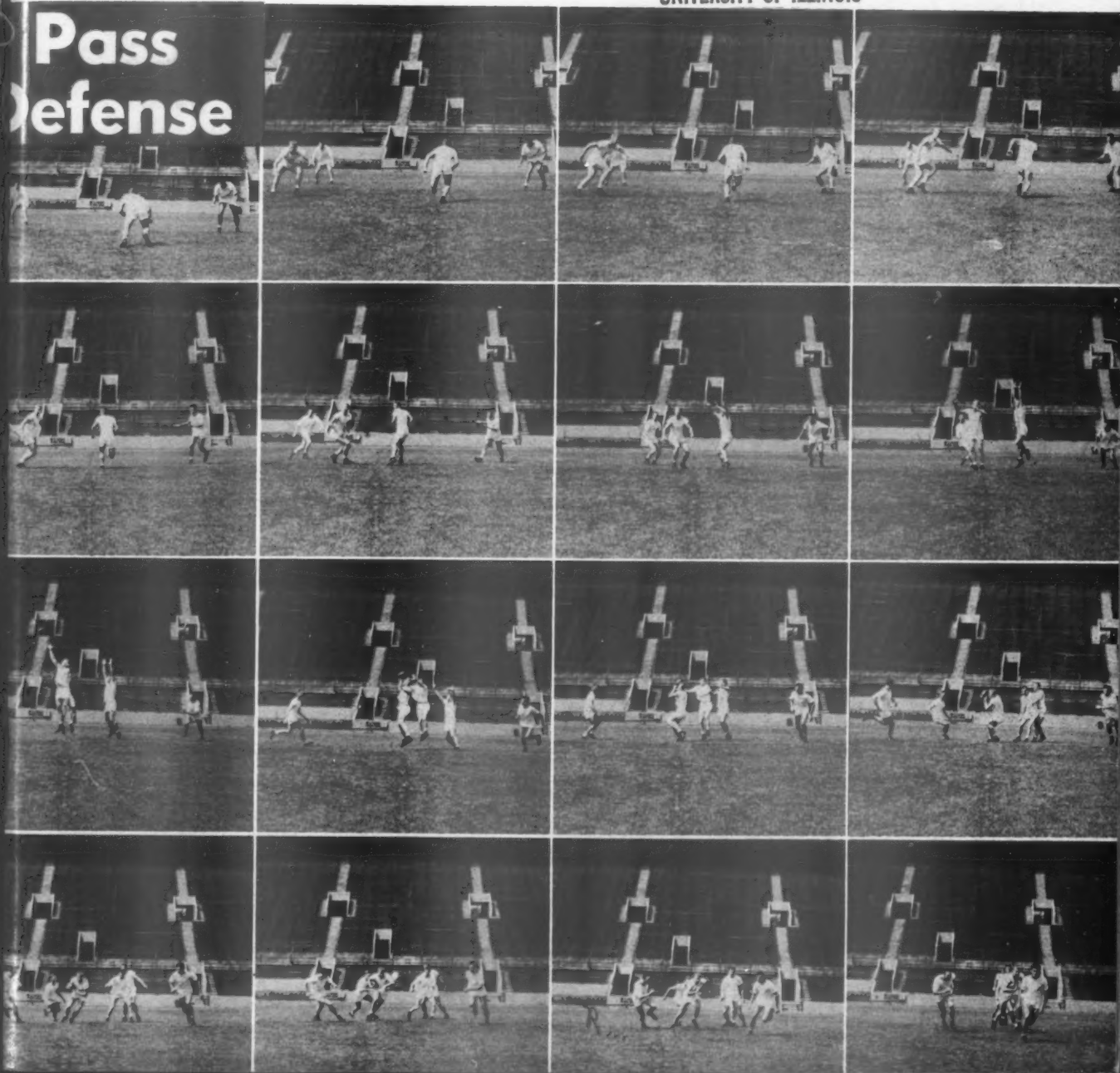
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September, 1949

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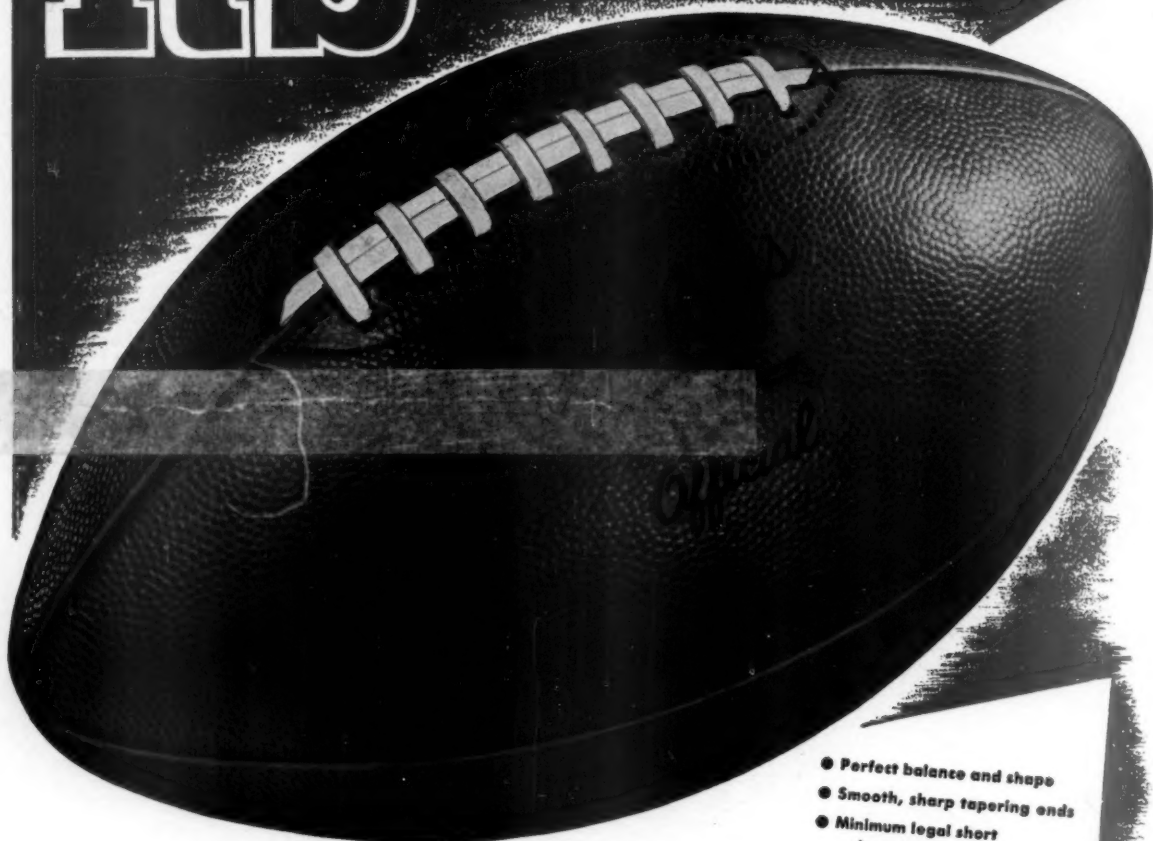
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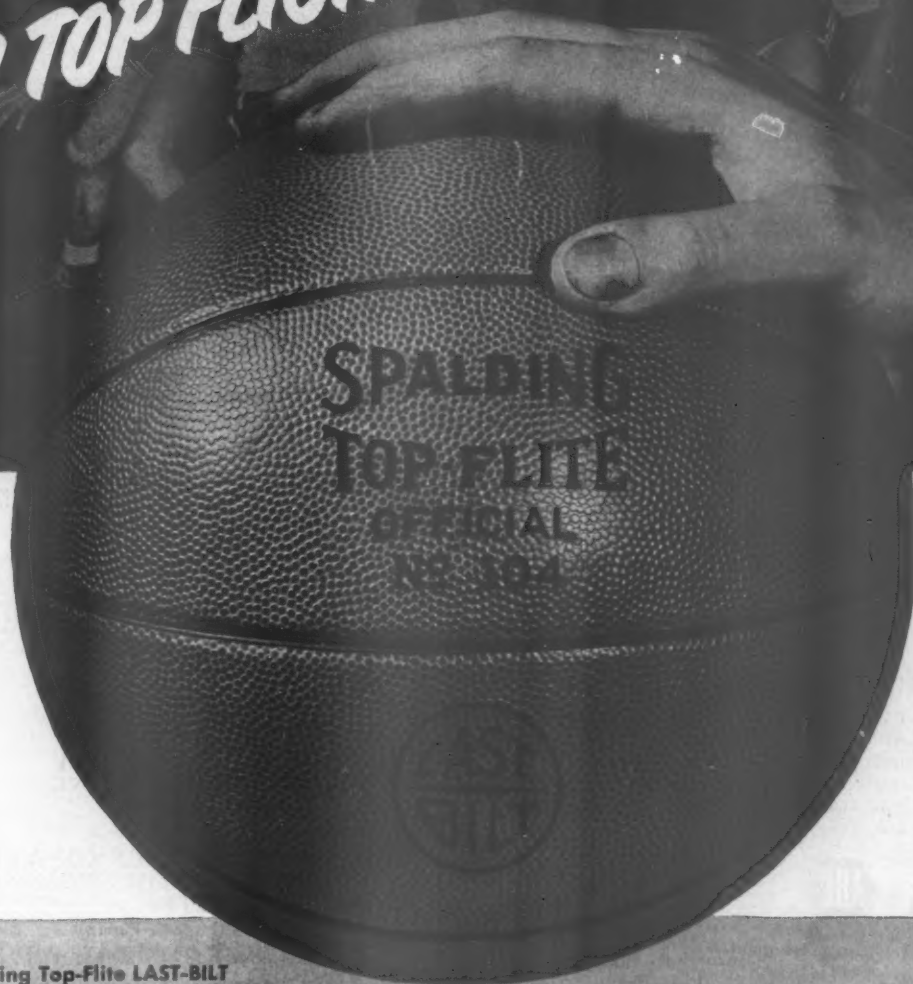
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The ATHLETIC JOURNAL

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Volume XXX

Number 1

September, 1949

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The linebacker, defensive left halfback and safety man defending against an offensive right end who buttonhooks. Note how the entire secondary defense converges and the interference forms immediately on the interception.

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COLORADO College had coaches from all points at its first and highly successful coaching school this summer. Among those in attendance was Anastasio Gerner, football coach at Normal Maestros de Mejico, who came all the way from Mexico City to hear Frank Leahy, Moose Krause and others lecture. Gerner was somewhat handicapped as he speaks very little English, however, Allison Binns, football coach at Colorado College and director of the clinic, arranged to send him a complete set of notes . . . Cliff Well's coaching school had 152 in attendance from 17 different states. . . . A new luminous fabric which had been used thus far in bathing suits, is now being used by the Sand Knitting Mills of Chicago to make basketball and football uniforms as well as boxing and wrestling trunks. The material glows—even in the dark. . . . The University of Oregon has open dates on its 1951-52 football schedule and desires intersectional games to be played at Portland or away from home. Address requests to Leo Harris, Athletic Director, University of Oregon, Eugene, Oregon.

Yale University has several changes in its football staff this year. Nick Kotys is the new backfield coach replacing Henry Margarita who goes to Georgetown University as head coach. Stuart Clancy, former junior varsity coach, is now freshman coach. He replaces Marvin Franklin who is now end coach at the University of Nebraska. The new junior varsity coach is James Holgate who was head coach at Hillsdale College last year. Another new addition is Jimmy Dunn. He will serve as backfield coach as he did at Brown University the past few seasons. . . . Harry Smith, guard on the championship teams coached by the late Howard Jones, returns to his alma mater as freshman coach. He comes from the University of Missouri where he coached under Don Faurot. . . . A new group in the South is the Southern Gymnastic League which was formed last spring. The purpose of

the organization is to promote inter-scholastic and intercollegiate competitive gymnastics in Florida, Maryland, Virginia, North Carolina, South Carolina, Alabama, Mississippi, Louisiana, Tennessee, Kentucky and Georgia. Dr. Hartley Price of Florida State University was elected President and Lyle Welser of Georgia Tech was elected Executive Secretary.

...

SEVER TORETTI, new assistant football coach at Penn State, coached Pennsylvania school teams at Brockway, Steelton and Williamsport . . . Arthur "Slick" Morton, former football coach at Virginia Military Institute, has accepted the head coaching position at Mississippi State where he succeeds Allyn McKeen. Arthur Lewis, former head coach at Washington and Lee University, has been named as line coach . . . Arthur Staff was honored early this summer in appreciation of his thirty-six years as basketball coach at Brockton, Massachusetts, High School. In those years his teams have won 418 and lost 163. In only three seasons did his teams lose more games than they won . . . Charlie Brock, University of Nebraska and Green Bay Packer football star, is line coach at the University of Omaha . . . Three of Marquette University's head coaches have a total of 65 years of service to the university. Conrad Jennings has been track coach 27 years, Frank Murry has been football coach 19 years, and William Chandler has been basketball coach for 19 years . . . John Scarborough is now coaching baseball at Saugus, Massachusetts, High School. He succeeds Belden Bly who resigned upon being elected to the state legislature . . . Russ Burns, Bates College basketball captain in 1947-48, is head coach of basketball at Gorham, New Hampshire, High School . . . Lowe and Campbell Athletic College Compang has announced the addition of two representatives: Lowell "Red" Nelson for southern Arkansas and Bob Brenner for central Pennsylvania. Nelson

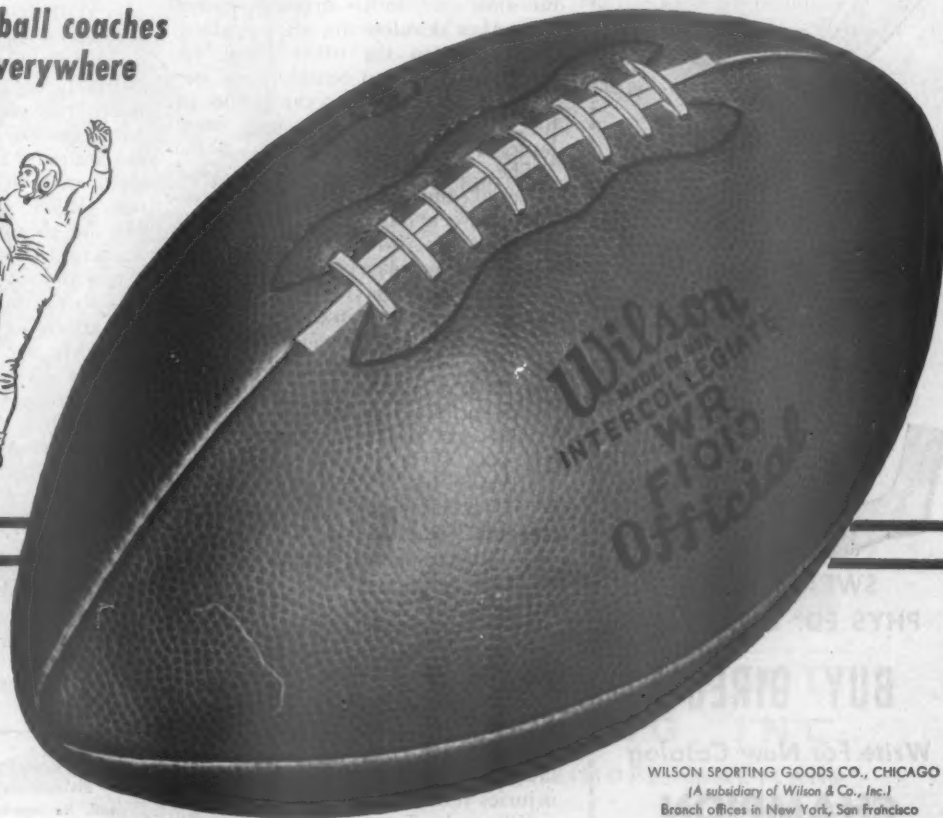
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Planning the Football Season

By **SOL KAMPF**

Line Coach, North Dakota State College

This is the second and concluding part of Mr. Kampf's article. The article began in the June issue and discussed the following: Inventory of facilities, equipment and supplies; study of available personnel; study of individual strengths and weaknesses; study of the past season's offense; deciding on the offense to be stressed; study of defenses for opponents.

A Systematic Arrangement of Practice Sessions

There are many factors involved in arranging workouts and we will try to list some of the forces influencing the situation.

Before the season starts the coach should study his personnel and decide what features he is going to stress in his offense and then delegate the most time to his strongest points to further develop the offense along that line. On the other hand, he must also take into consideration the development of some weak points in his personnel since they may cause lapses in his defense.

There are coaches who have good material and yet spend about two hours a week (about 20% of a week's time) teaching how to fall on the ball or having the players jog around the track. This seems foolish but it is true. The coach should have a written plan before the team goes on the field so that he can move swiftly and smoothly. Copies should be posted on the bulletin board as well as given to managers and assistant coaches.

Coach Clyde Smith at Indiana University has his manager hold a watch to keep close time with the schedule. He moves around the field informing coaches when to move on to other drills.

In order to keep the workout snappy and interest high I suggest that the coach have plenty of variety planned. We have found that sessions accomplish the most when run for an average of an hour and a half. After two hours boys develop mental fatigue, their learning falls off and injuries tend to crop up.

When the boys come out on the field they should jog out, pair off and go right to work loosening up. After this we would like to have them take five blocks and five tackles with

each shoulder at half speed. From then on they work full speed trying to improve their weak points. Coaches move around the field helping out wherever needed.

Conditioning exercises are very important and should be held before every practice session. The general thought on this seems to be that conditioning is to be stressed mostly at the start of the season and much time devoted to it during the first weeks, gradually working down to basic exercises as the season rolls along. All season long we like to stress certain warm-up exercises; first a good stretch in all directions, then calisthenics for knees, ankles and shoulders in addition to wind sprints. Sprints may be livened up by having relays with balls.

The coaches and players should be ever mindful of the fact that whatever skill they try to perfect they are actually trying to fit into a play of some sort. Thus, if a running guard is practicing pulling out of the line make him conscious of the plays in which he will be doing just that. The coach should keep associating definite skills with definite plays in his system. When a passer throws in practice he should also try to visualize an actual pass pattern where he will throw that type of pass.

Two big factors guiding the coach in arranging a practice schedule should be the condition of the squad and the scouting report of the game. If the report, for instance, stresses the fact that the opposition has weak guards the coach should perfect his middle-of-the-line plays more so than ever that week. If they are weak on pass defense, passing drills should be stressed.

If a coach plans some drills for his men and the time he allots is not adequate to cover them he should place that drill on the next day's

(Continued on page 70)

SOL KAMPF graduated from Davis and Elkins College where he played football. He received his master's degree at Indiana University. He coached at Davis and Elkins, Western Michigan and the University of North Dakota before moving to North Dakota State this fall.

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Calisthenics and Drills for Backs

By WILLIAM EARLEY

Backfield Coach, University of Notre Dame

WE HAVE our quarterbacks do the following drills: 1) the hurdler's spread 2) the seat roll (the tail should be kept as far down as possible to loosen the thigh muscles) 3) spins for the reverse pivot spins 4) passing practice (pairing off and throwing to another back).

All the backs do the following exercises: 1) Neck exercise. In this the head is moved up and down as well as sideways. 2) High arm exercise. The arms are held out in front of the chest and are raised above the head. They are then lowered to the sides. 3) Rotating arm exercise. The arms are held at shoulder level at the sides of the body and are rotated two minutes both ways. 4) Windmill exercise. The arms are raised laterally above the head as the person jumps and spreads his feet. 5) Bending exercise. Bending from the hips and touching the toes. 6) Leg exercises. There are several leg exercises that are given. The half knee-bend, the full knee-bend, the seat roll. In the latter the person must spread his feet as far as possible, lower himself on one leg and rest on the ankle. In another knee exercise the player rests on his knees and leans back as far as possible. This helps groin strains and develops the ankle.

An ankle exercise that is used is to have the players walk bow-legged stepping on the outer sides of the feet. This is reversed by having them spread their legs and walk on the inner sides of the feet.

Another exercise is to have the players crouch, place their palms on the ground and try to straighten up. They will not be able to get their legs straight but they should try. Occasionally a player will come along

who can come very close to straightening his legs.

An excellent arm and shoulder developer is the "Clap Hands Charley" exercise. The player does a push-up and at the top claps his hands. A good exercise even for backs is the "lineman's charge". The player does stationary crawling using his hands to anchor himself.

One of the best developers of good backs is an obstacle course. The first obstacle should be a suspended rope maze (Joe Paupa running ropes). Rope is knotted into squares about

WILLIAM EARLEY played varsity football at Notre Dame in 1940, '41 and '42 where he was a dependable line backer and a fast breakaway runner. During the war he played football for the 2nd Air Force at Colorado Springs. He returned to Notre Dame in 1946 as coach of the B squad. In 1947 he was appointed backfield coach. We so liked his lectures at the Colorado College Coaching school last summer that we asked him to write these up in article form for us.

2½' x 2½' and is then made into a pattern as shown in Diagram 1. Stakes are driven in at each end to support the ropes and padded wooden stakes are placed every three or four squares to keep the ropes from sagging. The maze is suspended 18" off the ground. This is an excellent device to develop high knee action in backs. They should run through the maze 1) any way they choose for speed 2) through one side only 3) stepping in every other square on alternate sides.

Following the rope maze should be

posts which the backs dodge and then a few linebackers who take a crack at the backs.

Another good drill is to have the backs run in a large circle around the coach. At his command they execute crossover steps, left leg dodges, reverse pivots, etc.

Pass Defense Drills

In the first pass-defense drill the backs line up across the field and run backwards. This teaches balance and loosens them up. Secondly, the backs run away from the coach while looking steadily at his stomach and pointing at it with one hand. As they run their whole body is faced away from the coach and only the head is screwed around watching him. When the coach shouts "Cross" they take a crossover step and run at a different angle. When executing this crossover step the back must never take his eyes off the coach. This is important because a clever passer will wait until the man covering him looks away in following his cut and then he will quickly cut back.

In a third drill the backs line up in three columns — right halfbacks, fullbacks, left halfbacks. The front man stands on the 25-yard line. The coach stands on the 15-yard line and throws footballs high, low or to one side of the first man in each column. After the man has caught the ball he dodges the coach and runs as fast as possible into the end zone. A similar drill has the backs running away from the coach who throws a pass for which they must extend themselves. In this drill the pass is not thrown until the player has used the crossover step properly.

In another pass defense drill four or five blocking dummies are placed among the backfield men. The coach throws the ball at one of the dummies. The backs try to intercept the ball. The man nearest the interceptor blocks back on the dummy nearest the interceptor. This is very important as often when a pass is intercepted in a game the man for whom the pass was intended tackles the man intercepting.

Still another pass defense drill is to divide the boys into groups of three. They should be of equal size.

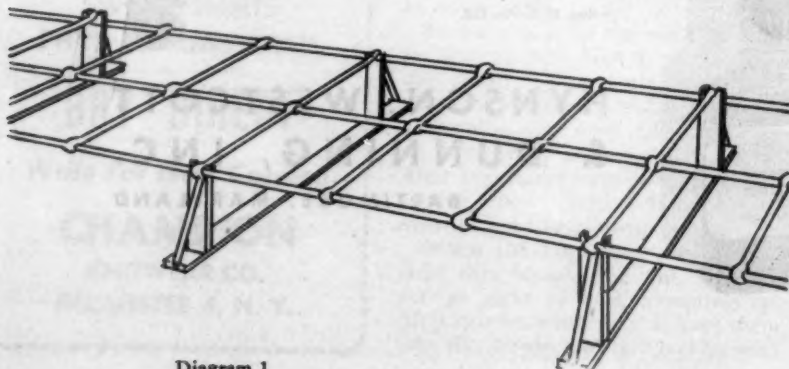


Diagram 1

(Continued on page 71)

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Pass Defense

By **BOB VOIGTS**

Football Coach, Northwestern University

AT Northwestern the players and the staff have spent many long hours, both on the field and off, on pass defense. Each day on the field the safety man, halfbacks and linebackers spend an average of twenty-five minutes a day on pass defense. We are fortunate in that our defensive personnel does not participate in our offense. As a result we are able to split up our staff and have one group work with the offense and the other group work with the defense. Off the field many hours are spent each week in our staff meeting and our lecture sessions on pass defense. We feel that the morale of a football team can be seriously injured if a 50-yard pass is completed for a cheap touchdown, and we also believe that each time we can intercept a pass, our opponent's willingness to continue passing is greatly cut down.

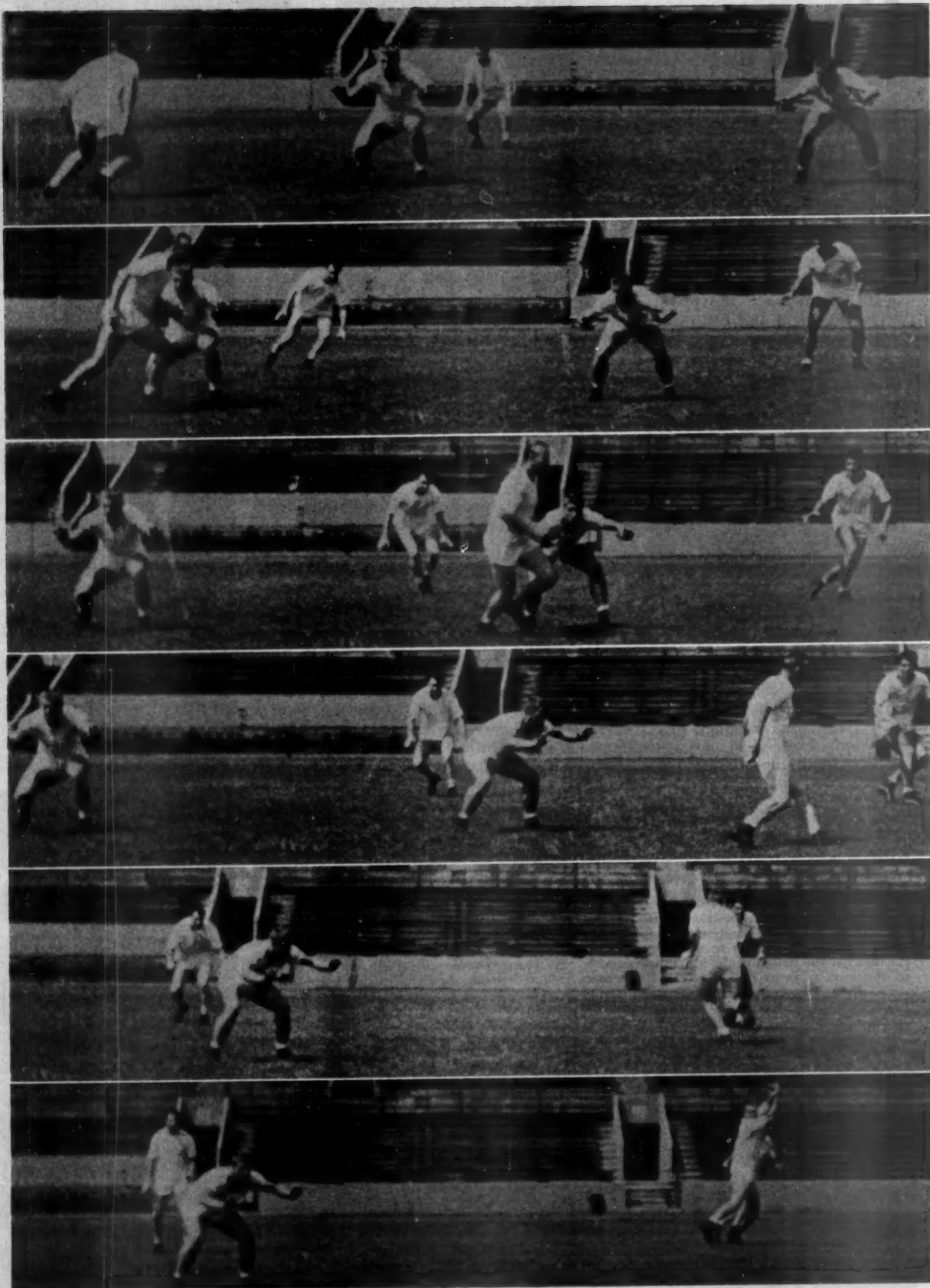
At the beginning of each football season every man on the squad must write the following principles of pass defense in his notebook.

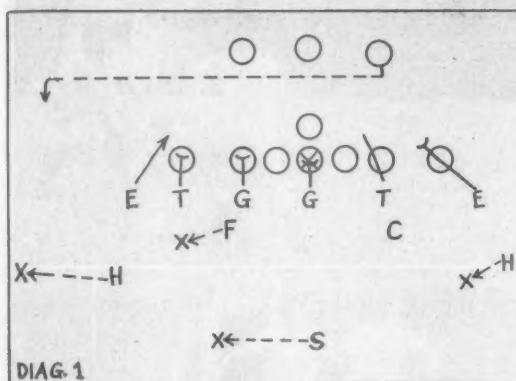
A. General Principles.

1. The secret of pass defense is to rush the passer. It is hard for the opponent to throw a pass from a horizontal position.
2. Backfield men and linebackers should assume a basketball guard's stance the minute the opposing center gets over the ball.
3. The play should be diagnosed as to whether it is a run or pass as quickly as possible.
4. Both linemen and backs should watch the passer and never turn their backs or lose sight of him. Backfield men should be able to see men coming into their territory without looking at them. They should cover the man at such a distance that they will always have a chance for interception.
5. Long hard hours must be spent each season with the backs and linebackers to teach them the art of running backwards. The player must turn his knees to the side and run. Back peddling is too slow and of no value in our type of football.
6. The player must always play the ball to intercept. He should not be satisfied with merely knocking it down. A player may be just as rough as he wants to if he is reaching for the ball with two hands. Nothing will ruin a passing attack any faster than interceptions.

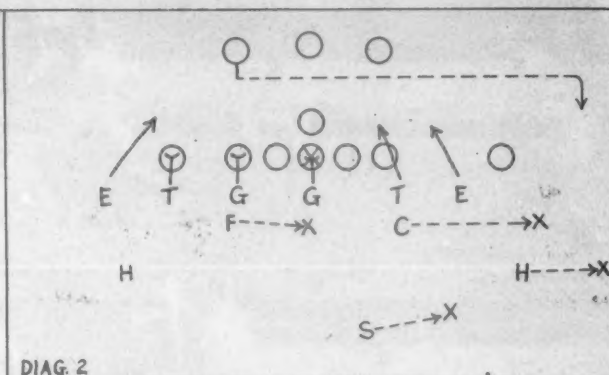
The offensive right end breaks for the side line and is covered by the defensive left halfback. Illustration 1. Note the position of the defensive halfback in respect to the end breaking down the side line—approximately three yards to the outside and three yards back where he can look through the receiver to the passer. Illustration 2. The defensive halfback starts to make his move as the ball is in the air. Illustration 3. He places his outside hand over and on top of the two arms of the receiver. Illustration 4. Note how the halfback is still keeping outside and in back of the receiver. Illustration 5. Note the aggressiveness of the defending halfback in going for the ball. We instruct our halfbacks to play the receiver as aggressively as the rules permit. Illustration 6. The defensive halfback continually watches the ball. Illustrations 7 and 8. He has batted the ball to the ground so that no offensive man has a chance to take it while it is in the air.







Man in Motion



Flanked end with motion

7. Immediately after the ball is thrown it is important that all men on pass defense converge on the ball no matter how far they are away from it. Each player should realize that he may be the man that throws the key block for the interceptor and six points.

8. If a pass is completed in a player's territory he should keep his poise and prepare himself for another pass in his area, for undoubtedly the offense will figure him as a weakness

he leaves the safety spot.

2. He should drop back slowly and watch the flow of the play as he watches the passer. The safety should be sure to take the deep man and should be careful not to make up his mind too soon.

3. On interceptions he should concern himself only with the ball. He should look the ball all the way into his hands.

4. When a pass is completed in the safety's territory he should make sure

yards. After that he should be extremely cautious and look for another crossing receiver.

3. The halfback should meet running plays as close to the line of scrimmage as possible, meeting the play from the outside.

4. When the halfback makes a tackle on the line of scrimmage he should prepare for a pass in his area on the next play.

5. The halfback is playing an area and a man. He should see the man as he comes into his area with peripheral vision. He should watch that passer and always play the ball aggressively, particularly in practice.

6. As soon as the ball is thrown he should make every effort to get as close to it as possible. If it is not in his area he should remember that he may throw the key block that brings six points.

D. Linebackers - Strong Side.

1. The strong side linebacker's first responsibility is to stop the running plays.

2. His next responsibility is covering the flat and the receiver in that area. He should watch the passer as he covers him.

MAN IN MOTION

The left halfback is in motion against a 5-3-2-1 defense. The left defensive halfback is covering the man-in-motion down and out. The outside linebacker continually protects himself from the motion man coming in to block him. The defensive halfback always keeps the motion man to his inside so he can see both the receiver and passer. In Illustration 2 notice the safety man sliding over to protect to the side of the flow of the play. If the motion man had taken an inside route the left defensive halfback would receive help from the safety man.

on pass defense.

B. Individual Play of the Safety.

1. The safety's responsibility is the long pass deep down the middle or on either side. He must be sure that no one receives a pass behind him as he is the last line of defense. He should know where he is going when

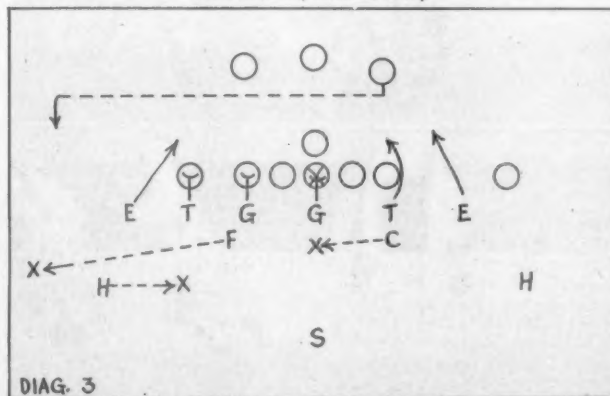
of his tackle. A hard tackle is not necessary in this case.

C. Individual Play of the Halfback.

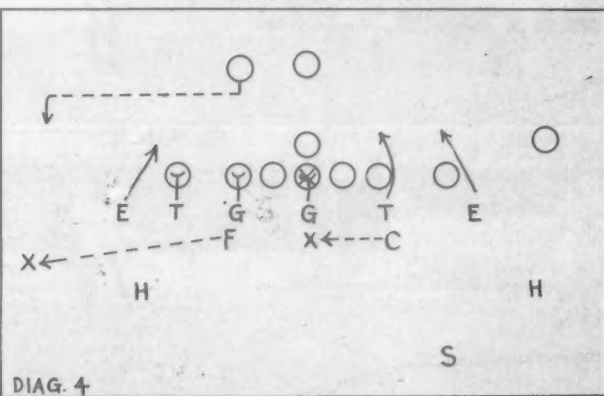
1. The halfback's responsibility is back and out. He should always keep his eyes on the passer.

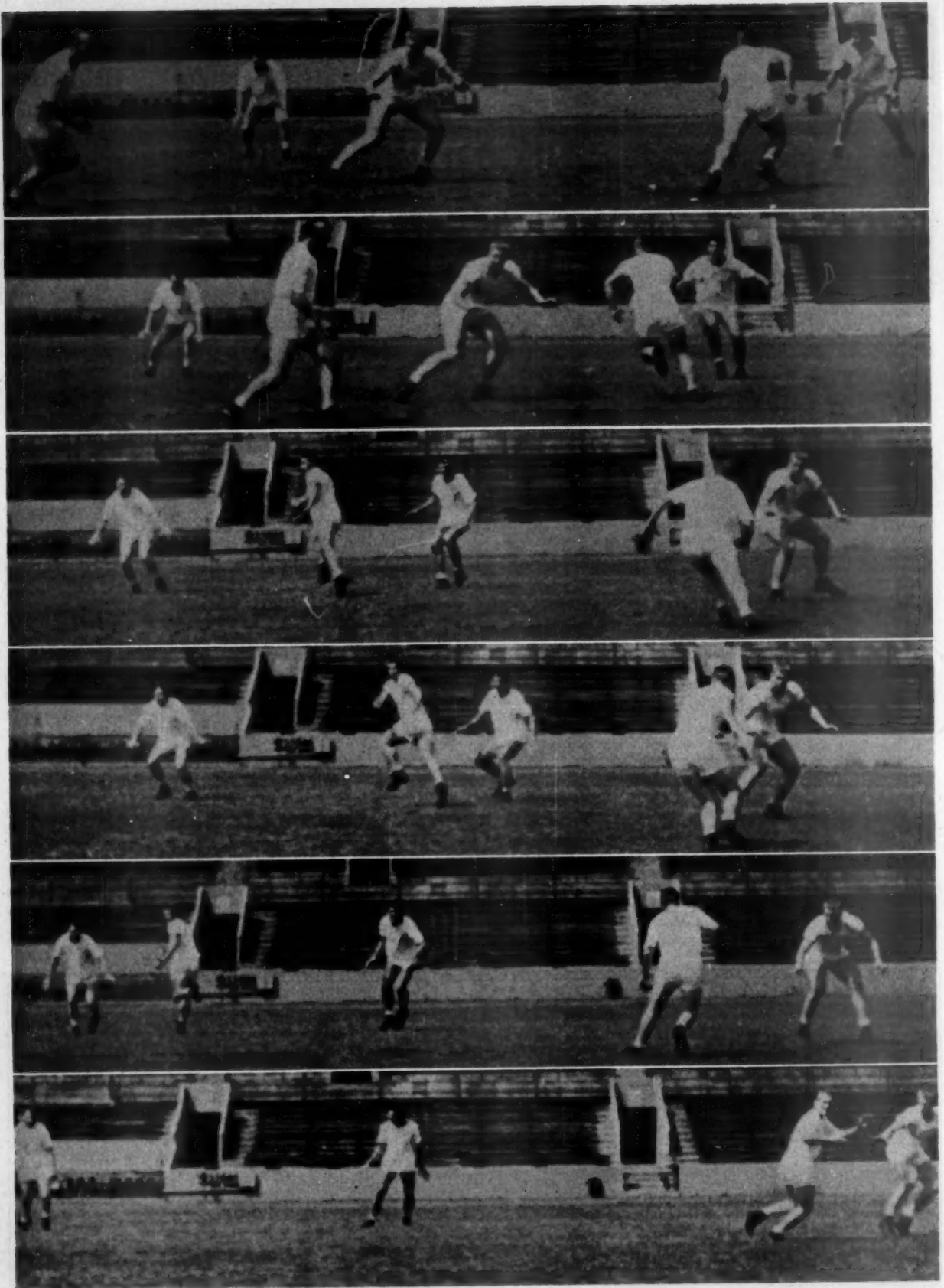
2. The halfback may carry a man in his zone for approximately four

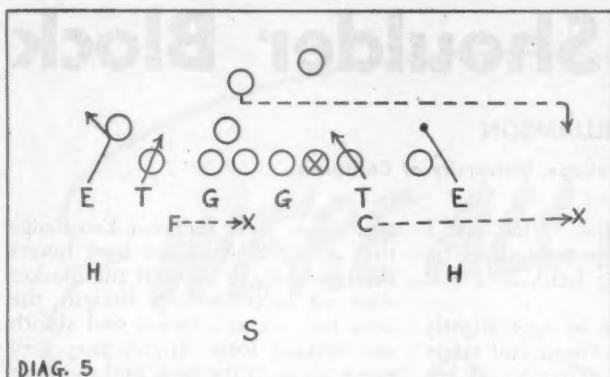
End flanker, motion away



Half back flanker and motion







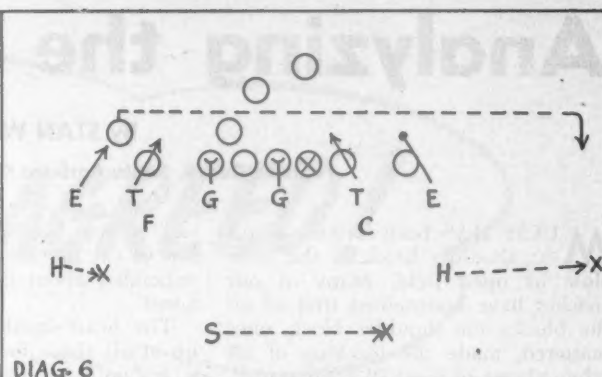
Single-wing man-in-motion to weak side

3. Delayed men in the flat are the linebacker's responsibility.

4. If no one comes into his zone, he should give ground back and to the outside. He may help the halfback on his side that has had two men sent into his area.

5. When a reverse pass starts, the side to which the ball goes is considered the strong side.

6. The linebacker should shove,



Wingback in motion to weak side

3. If no one comes into the flat the end should look to see if he can pick up a man crossing from the other side.

4. When his assignment is to rush the passer the end should do so in two movements: He should reach the point first and then rush hard from the outside. He should remember that fake passes and statues are his responsibility.

5. The end should attack the passer with his hands high. The end should make the passer look and throw over him. He should tackle high and slide down.

G. Tackles.

1. The tackle should reach his defensive point by delivering a defensive blow. The minute a pass shows he should get rid of his blocker and go for the passer.

2. The tackle should really hit the passer as he is the bulwark of the pass defense. The tackle should not worry about blocking the pass. He should just make sure the passer does not throw again.

H. Guards.

1. The guard should first reach his point on defense and the minute a pass shows he should get rid of his blocker and get to the passer.

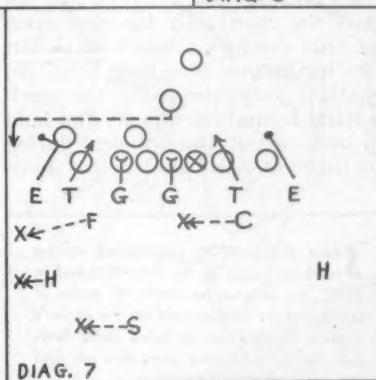
2. If he is the guard that drops out of the line on pass defense he should not feel that he is a guard just filling in but should learn to run backward and cover passes like other linebackers.

3. The guard should always keep his eyes on the passer when linebacking and should push and bump all receivers that get into his area.

4. The guard should remember that he is responsible for middle screens.

One of Northwestern's favorite defenses last year was the over-shifted

(Continued on page 64)



Man-in-motion to strong side

MAN-IN-MOTION WITH A FLANKERED END.

The right end is flankered with the left halfback in motion to the flanker. The left defensive halfback slides out with the flankered end. The linebacker moves out with the man-in-motion. The left defensive halfback's responsibility is back and to the inside; the linebacker's responsibility is back and to the outside. The safety man is a free agent favoring the flow of the play. Note in the bottom picture that the ball is on its way to the motion man, down and out. Note the position of the linebacker looking through the receiver to the passer. Since the ball has been thrown, the safety man has released himself from the flanking end and is coming to the intended spot of reception.

push, and bump any receiver that passes him on the way out. This must be done to help the pass defense.

7. On sure passing situations he should line up deeper and wider to help himself on pass defense.

E. Linebackers - Weak Side.

1. The weak-side linebacker's first responsibility is the running play.

2. His second responsibility is covering the middle or weak side, whichever he has been assigned.

3. He should be alert for button-hooks.

4. He should keep receivers from getting downfield by bumping, pushing or shoving them. It is not a forward pass until the ball is in the air.

5. If a reverse pass develops it will reverse his assignment.

F. Ends.

1. The end should first reach his point and not take too much depth.

2. If he has flat responsibility he

should give ground by running properly, watching the passer and facing the passer.

ROBERT W. "BOB" VOIGTS played football at Evanston Township High School as well as at Northwestern. At the latter school he was a standout tackle under Lynn Waldorf and played on the 1936 Wildcat squad that won the Western Conference title. He was a member of the All-American team in 1938. He also captained the basketball team. After graduating in 1939 he became assistant coach at Illinois Wesleyan. In 1941 he served as line coach at Yale. He entered the Navy the following year and served for two years as assistant football coach at Great Lakes before going to sea for two years. He coached under Paul Brown with the Cleveland Browns before coming to Northwestern in 1947. His second year he took his team to the Rose Bowl where they defeated California and Pappy Waldorf.

Analyzing the Shoulder Block

By STAN WILLIAMSON

Football Coach, Santa Barbara College, University of California

MUCH HAS been written about the shoulder block in the semi-close or open field. Many of our coaches have maintained that of all the blocks, the shoulder block, once mastered, made the teaching of all other phases of football comparatively easy.

My respect for the well-applied shoulder block dates back to my playing days with the late Howard Jones, one of our finest coaches and most certainly one of the greatest fundamentalists that ever lived. Unquestionably, the fundamental that Coach Jones spent the most time on was the shoulder block. He was a master at teaching it and it would be impossible to ascertain the amount of practice we did on the large hanging bags. We did not spend one minute in tackling practice. There seems to be considerable connection between the ability to tackle and block. I doubt very seriously if Howard Jones spent any time teaching his boys how to tackle the many years he was at Southern California.

The shoulder block, as we all agree, should be applied when the body is under complete control by the blocker. The actual teaching should be started within a foot of the bag itself, with the main emphasis being upon the lunge from both feet. This drill enables the coach to spot any wasted motion the boy makes and helps him iron out head and back alignment as well as teach the

use of the two arms. What are a few of the more important things to remember about the head, back and arms?

The head should be kept slightly up at all times for vision and safety if for nothing else. Nine out of ten times the man with his eyes open not only executes a better block but risks less chance of getting hurt. An excellent technique is for the coach to stand behind the dummy and hold up one, two or three fingers during the lunge to see if the boy can count

and rigid. It is common knowledge that a sagged or arched back lowers the shock of the blow. If the blocker does not keep his back straight, the back will act as a spring and absorb the striking force. Injury may very easily occur to the back and shoulder unless the back is kept squared, rigid, and straight.

The arms are indeed important. The arm on the side of the shoulder being used is the most difficult to teach how to use properly and effectively. The lunge drill is an excellent one to point out the use of this arm as a means of broadening or increasing the blocking range of the shoulder. The close upper arm is made an extension of the blocking shoulder by bending and raising the elbow slightly above the level of the shoulder with the hand at the blocker's chest. Anatomically, it is well to remember that the two strongest abductors of the humerus are the middle deltoid and the biceps (long). However, the lower scapularis and infraspinatus are not capable of exerting their force effectively until the elbow has been elevated slightly above the fulcrum of the joint (shoulder). The lower part of the arm on the side of the shoulder being used should be held up tight and as close to the upper arm as possible, with the palm of the hand, in clenched fist, toward the ground. This position places the arm

(Continued on page 72)

STAN WILLIAMSON contributed articles to these pages in the late '30's and in 1940. He is now on leave to study at the University of Colorado for his doctor's degree. In addition to being head football coach he teaches corrective physical education at Santa Barbara.

them. The cervical (neck) region of the spine carries an unwieldy weight in the heavy head and its equipment. It must be remembered that the head is not in normal segmental alignment and must be kept in a tensed and bull-neck position or a snap down or thrusting back of the head might occur causing a serious injury.

Conversely, the same is true of the back. Keeping the back squared is all-important. Never allow the player to bow or sag his back while blocking. The back must be kept straight

straight down it) and across into the large muscles of the back and far leg. The near leg is on its way down for the follow-through. The knees point out rather than one out and the other straight down as so many blockers have done after they've caught themselves on their side and out of the play. Illustration 3. Feet. The toes should be pointed out along with the knees. This keeps the foot and leg working in a true anatomical position rather than a twisted or unnatural position. It also assures a quick recovery in case of a missed block.

Illustration 1. Back and Arm. The back should be kept angling upward rather than straight. This assures vision and body position to raise up into the mid-section. The arm should be bent slightly sharper than at a right angle from the body and the wrist should be twisted as shown; this helps contract most of the muscles of the forearm. The hand next to the chest should be kept on the blocking side. Illustration 2. Legs. This picture was taken at the instant of contact. The drive is made off the left foot causing the shock of the blow to be thrown through the spine (rather than

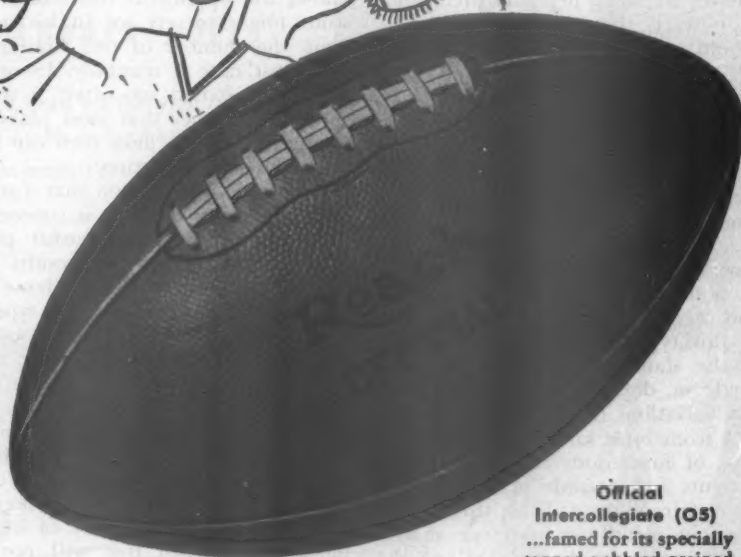


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Offensive Scouting

By HARRY FURMAN

Football Coach, Marion Institute, Marion, Alabama

AN opponent's offense, which includes running, passing, kicking and generalship, is scouted for the purpose of determining their strength and weakness in each of these areas. Upon the basis of the information gained, concerning the effectiveness of the opponents in these four phases of play, all the defensive plans for the approaching game are built.

In general, a scout should try to see everything, but not all at once. He should try to see something specific during each play. A list of some of the general points that he should observe in each department of the offense are listed here. In attempting to observe these points, the scout should make more mental than written notes until after the game.

I. Running Game

The running game is still considered the heart and soul of offensive football. In an average game, about 65 percent of all plays are of this type. Practically all of the great teams in both recent and past years have had a strong running attack. Plays of this type may develop from any of the standard formations such as single or double wing, punt, T, or any variations of these formations.

A scout must know beforehand the type of formations used by the opponents and possible plays that may be run from them. With this knowledge in mind, an observer should not attempt to diagram all of the opponent's running plays, but try to check the ones used with what he already knows about them. If there are unusual variations in either formation or blocking, he should diagram them. Otherwise, he should watch for their best and favorite plays, noting when and where they are used.

As the opponents line up a scout should notice their general formation, and positions of the backs. He also should check these later in the game for any variations that might be "tip-offs". It is often a good idea for the scout to pay particular attention to the deep man in any formation or the last man to leave on a play. He is apt to be the key ball-handler or the runner. It is also a good idea to study peculiarities of

any backfield stars, since many times the whole offense is built around them. If the ball goes to the tailback, the scout should observe the line in order to find out where the key blocks are made on the play, and their relative effectiveness. Usually he will only have to watch about four men on such a play; knowing what they do he can likewise figure out what the other seven men do on the play. The scout is not interested primarily in where the ball-carrier goes because his path may be picked up by reconstructing the blocking later. If the play completed is one that he knows the opponents use often, the scout might merely jot in his notebook the number of one similar to it or just note it mentally. In order not to be fooled too often, a scout should remember that most plays go to the right, since most men can run better in that direction.

The basic information that a scout wants as far as the line is concerned is where are most successful plays made, and whether the results are due to strength of the offense or weakness in the defense. The type of blocks used by the line are also important to the observer. Do they crossblock, trap, double team, or checkblock? Do the linemen go through for blockers? The scout must keep in mind, however, in watching the types of blocks used, that they will depend a great deal on the defense. A diagrammed play of blocks against a six-man line will not be the same as those against a five-man line. That is why a scout should not attempt to diagram each play but should get a general idea of the play and the formation that it was run from so that he can recognize it and be able to classify it the next time. Each type of play is said to have its own individual earmarks that make it different from the rest. It is up to the scout to note these earmarks and make use of them.

II. Passing Game

It is a primary duty of the scout to evaluate the opponent's offense in order to determine what part passing plays in its attack. He must observe the conditions under which passes are used, the time necessary to

get them off, the location of the point to which they are thrown, and the weak and strong points of the play. These conditions, plus the pass protection, the relative ability of the passers and receivers, and the deception on the play must be considered. The observer must try to determine the most effective defenses that can be used against the passing team by noting the strength and weaknesses of the pass defenses being used on the field.

As far as possible, a scout should try to diagram any new or out-of-the-ordinary type of pass plays used by the opponents. These plays usually vary greatly from year to year and so must be rechecked. Elaborate drawings are not necessary. Two or three pencil lines are sufficient to show the paths taken by the ends and backs down the field. On each play as soon as the observer notes that it is going to be a pass, determined by the type of blocking in the line or by a back fading to the rear, he should give a quick glance to the type of protection the passer is getting and direct his eyes down the field. Here, by watching the offensive ends and backs he can see the opponent's pass patterns and strategy unfold. He can do this by checking on the paths and maneuvers employed by the potential pass-receivers and decoys. With this information in mind he can hastily jot down what he has seen. Sometimes scouts can do this without their eyes leaving the playing field.

A diagram may also be used to show how the other team is attempting to cover the eligible receivers of the offensive team down field. In this case, not only the paths of the pass-receivers would be shown, but the actions of the defensive backs as well; depicted only by one or two pencil lines.

III. Kicking Game

Place or Drop Kicking. These types of kicking are used mainly for points after touchdowns. However, they may also be used for field goals and so are a scoring threat and must not be neglected. The drop kick is somewhat of a football rarity these days but the art of place kicking has be-

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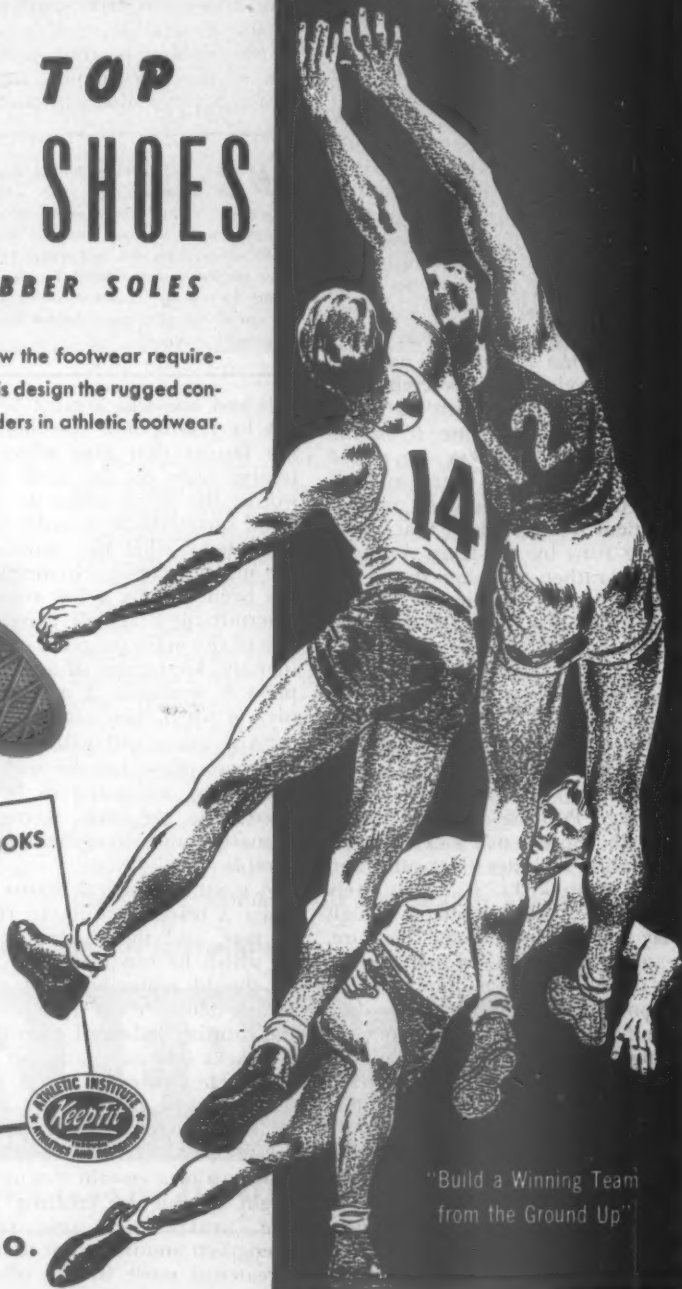
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A scout must note the formation used in place kicking and the ability of the kicker, holder, and center. These players are the three key men in this particular formation. If any of these men fail to do their part the chance of a successful kick is diminished. If the scout notices that the center is bothered by men directly in front of him and so throws bad passes to the holder, this information should be made use of. He should also observe whether the kicker can be hurried and thus diminish his effectiveness.

In addition to these three men, a scout must note the type of blocking used by the linemen and the other two backs. He must try to note any weakness in their defense. He should also watch for any runs or passes from this formation, especially when the opponents are attempting a field goal. A scout should also be conscious of the way that an unsuccessful field goal is covered. An alert defense might be able to take advantage of a poor place-kick.

Receiving the Kick-Off. The plays than can develop from receiving the kick-off are as important as those that start from the line of scrimmage. Many touchdowns are scored as a result of a well timed and coordinated play. It is usually neither an accident nor good luck that causes the long runs by the team receiving the kick, rather they are the result of much diligent practice.

The scout must note the way that the players are lined up; where their best backs are located; how the opponents block; and where they run with the ball. He must try to determine whether they are better at kicking or receiving, and which they prefer to do.

Punting. Punting is a major portion of the opponent's kicking game which also includes kick-offs and place or drop kicks. It is definitely an offensive phase of football, though it may be used as defense measure. The ground gained by use of the punt is considered as important as that gained by running or passing. The effectiveness of an opponent's punting will be a factor in their offensive strategy, and must be considered by the scout's team in planning their defenses.

A scout must notice the type of punt formation used, the spacing and position of men, and the ability of the punter. He must also notice how well the linemen block for the punter and how they cover the ball down

the field. It is also important for the scout to note any other plays that are used from the punt formation, such as fake kicks, passes, or line bucks. He should observe the defense used against the opponent's punt formation and its relative effectiveness. A scout must also be alert for quick kicks or any threat of them, from any formation.

IV. Offensive Generalship

The subject of offensive generalship may be divided into two parts. One division is tactics, which refers to the general type of attack; the second division is strategy, which refers to the specific play used. This area is a very important part of foot-

HARRY FURMAN graduated from Cornell University in 1947 where he played football three years—two under Carl Snavely and one under Ed McKeever. He received his MA in Physical Education at the University of North Carolina where he served as assistant coach to Carl Snavely for two years before taking his present position.

ball and one which must be worked out by taking into consideration all the factors that may affect the offensive team on the field. In other words, the scout must be a grandstand quarterback in order to get an estimate of what the opponents will do under certain circumstances. It has been said by a few coaches that determining a team's generalship is one of the main purposes of scouting; that the knowledge of an opponent's plays is worthless if a team has no idea of when they might be used.

"Any coach will willingly spot his strongest plays, but he will not tell when they are going to be sprung. That's the big trick: Recognizing a formation and strengthening the vulnerable spot."

A scout, in general, wants to know when a team is going to run, kick, or pass, and the various techniques by which he can find this out. First he should remember that the play-calling tendencies of quarterbacks and the running habits of even the greatest backs seldom change in a single week. He can count, to a great extent, on their reacting the same way in the next game, under similar conditions. This fact is important because up to a certain extent, a coach might gamble by creating a defensive weakness in one point, to strengthen another point that may be threatened more by the offense. An

example of this situation is a team permitting their ends to drift in order to stop end sweeps, but in so doing making themselves vulnerable to off tackle plays. In this case the team is not as worried by the run between the tackle and the end as it is the run around end.

Second, a scout must take into consideration, as far as possible, the same things that the field general down below is thinking about. A few of these are: The time left to play, position on the field, the weather, score, down, and distance to go for a first down. Since it is often difficult to consider these conditions while looking for other information, a scout can be aided by keeping the zones of the field in mind. These can give him a ready reference to the standard type of generalship, but they should be used only as a guide, since there may be many other factors that affect play calling that the scout does not know about.

Third, the scout must try to determine the general planning of the quarterbacks. He should note if they tend to use certain plays a great deal in similar situations. The observer should try to determine if the field general is good at picking the weak spots in the defensive line, and if he varies a great deal from the normal play calling. A point to remember by the scout is that all teams have their "Sunday plays" that they rely on and use when under pressure. These plays should be carefully noted by the observer.

Fourth, the scout should note the relative ability of the quarterback as far as ball handling, and running are concerned. He should note whether the field generals used by the opponents vary in their ability and if their entrance into the game may provide a clue to the type of plays that may be expected. The weaknesses, if any, of the quarterback should be noted and any means by which they may be used to advantage should be recorded.

V. Utilization of Offensive Information

Immediately after the game the scout should transfer his rough notes and diagrams to a scout report form. If two or more scouts are working together they should combine their information into a master scout report. If the team has been scouted before, the latest reports should serve as an addition to or a verification of the other reports. The scout should

(Continued on page 74)

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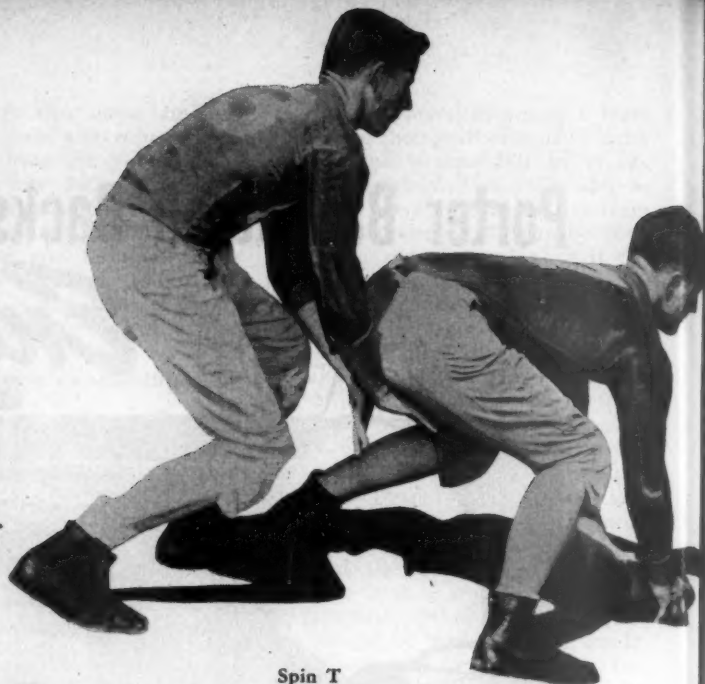
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81 YEARS OLD



Straight T



Spin T

Straight T and Spin T

By E. P. COLEMAN

Football Coach, St. Mary's High School, Phoenix, Arizona

ABOUT 1930 the modern T formation was born. It was the composite work of Ralph Jones of Lake Forest College, George Halas of the Chicago Bears, and Clark Shaughnessy, then of the University of Chicago. Shaughnessy brought Jack Meagher's Rice Institute T formation ideas north with him from Loyola of the South at New Orleans and combined his own theories with those of Jones and Halas in the great Chicago Bears experiment. In 1940 Don Faurot of the University of Missouri started his highly successful version of the Straight T which was called the Split T. These are the extremes of the modern T formation.

In 1944, using the ideas of such successful coaches as Skip Palrang, Boys Town coach, who made perhaps the best adaptation of the T for use by high schools; and Henry Frnka, who had been highly successful at Tulsa

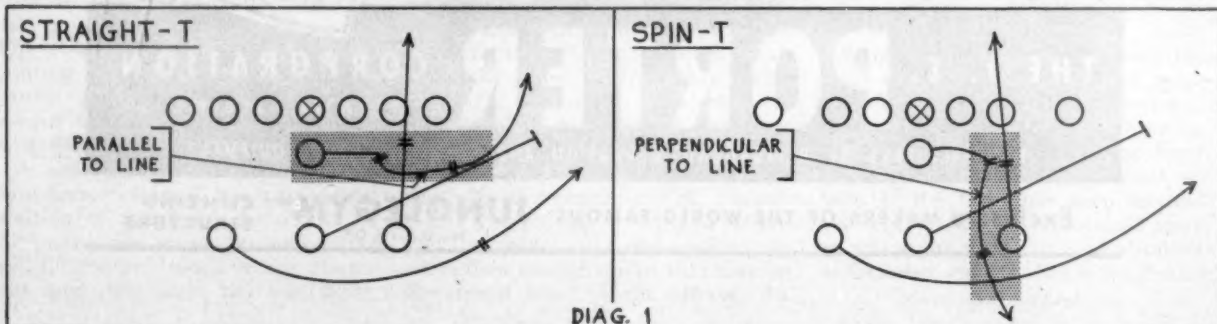
with a combined Single Wing and T formation, I began the idea of combining the Motion T with the Split T. This new formation, because of the action of the quarterback, I named the *SPIN T*. It does not mix formations but mixes techniques of the two T formations.

After recent comments and articles in the *ATHLETIC JOURNAL* on

the Spin T I have received many requests for an explanation of its techniques and plays. How does it differ from the Straight T? is often asked. I will list several differences but do not aim to show the superiority of either formation. Perhaps the type of material available would make it possible for a coach to exploit the differences in the techniques.

I. In the Straight T the quarterback is as close to the line as possible, his hands are less than one yard from the ball and his feet are almost in line with the center's and are as close to the center's as possible (Illustration 1). In the Spin T the quarterback has his left foot forward equidistant from the center's feet and about a foot back of them. His right foot is back and slightly to the right of his left foot which places his body in a comfortable semi-crouch (Ill. 1).

II. The Straight T quarterback moves parallel to the line on plays while the Spin T quarterback moves perpendicular to the line (Diagram 1). In the Straight T the quarterback is a running threat while in the Spin T he is principally a passing threat. Both can make good sneaks from



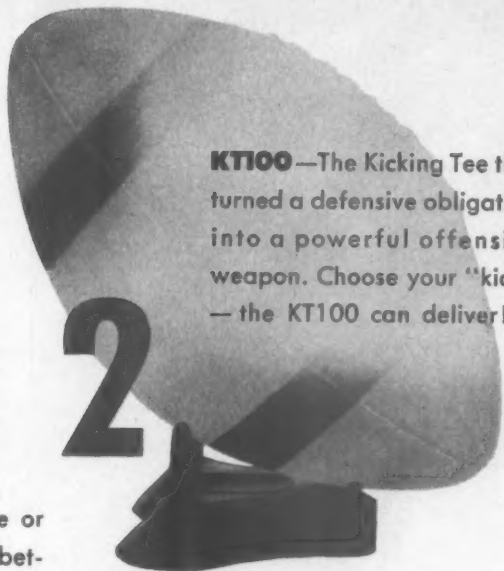
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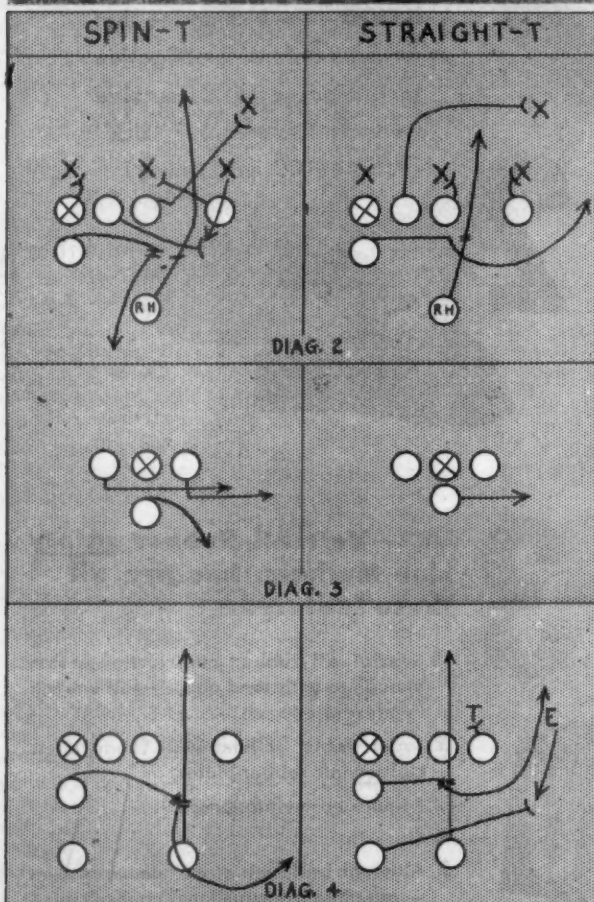
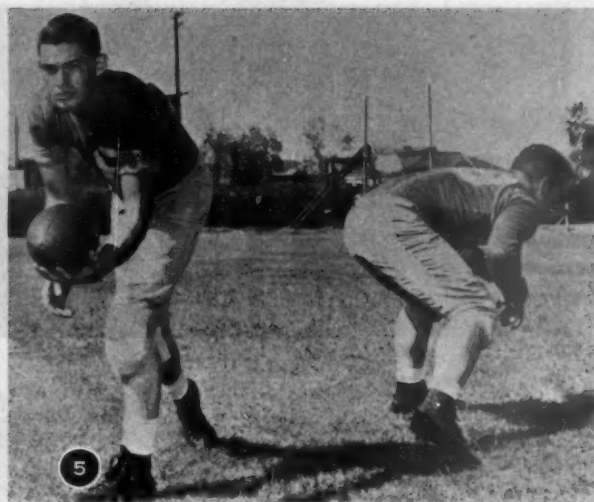
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- 4 Store flat.
- 5 Although basic unit is two numbered sides — patented construction permits 3 or 4 side assemblies as shown.





their position. The Straight T quarterback has a better position for laterals in the flat and short passes. The Spin T quarterback has a better position for faking to more than one back and getting protection while passing. His jump-pass position is better (Illustration 3). His balance for getting off his feet is far more comfortable.

III. The Spin T quarterback need know fewer steps and maneuvers than the Straight T magician. He needs only to pivot on his back foot for any maneuver. The Straight T quarterback must know the half, quarter, and three-eighths pivots both forward and rear at least. When pivoting to the left the Spin T quarterback swings his front (left) foot over to the left in one step (Illustration 4). The spin to the right is made by swinging the same (left) foot over to the right in a spin (Illustration 5).

IV. The Spin T differs from the Straight T in that the Spin quarterback is half a step nearer to the backs and it is possible to move the halfbacks and fullback back about half a step which would permit more cross-blocking and trapping by the linemen. In the Straight T this adjustment is made by spreading the line. A movement of at least three linemen is necessary (Diagram 2).

V. In the Straight T the linemen cannot pull out very easily. If they did they would bump the quarterback and upset the timing. The basic movements that he makes prohibits the guards from pulling. The delayed type plays of faking to more than one back and the pivot on the back foot enable the linemen to pull from their positions with the Spin T quarterback. Note the space in Illustrations 4 and 5 between the quarterback and the center which would permit the guards to pull around between the center and the quarterback. Diagram 3 also illustrates this. The Straight T quarterback's move-

(Continued on page 62)



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Nation-wide Amateur Athletics

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Publisher

Television a Problem

WE HAVE discussed television quite frequently in these editorials. It would not be amiss to state that we are worried about the role television will play in the future of athletics.

Sports and athletics have comprised the backbone of television programming. Notice in any newspaper or magazine how the television receivers advertised therein always depict a sport scene. The answer is obvious—sporting events, with the exception of professional boxing, make little or no charge to the television station.

Mr. Thomas E. Corbett, in a recently published book, "New Directions for Television", makes some interesting observations concerning television sports programs.

Mr. Corbett states: "The scarcity of good programs causes many persons to turn to sports. Naturally many of these people become fans as a result of their video introduction to sports. Surveys indicate that people will accept almost any program for the first six months. They accept sports whether they like them or not. However, as the offerings in drama, music and variety improve, both as to quality and quantity, people who are not already sports fans will turn to drama, music and variety because these are their established interests. Few new sports fans will be made by television under such circumstances."

Mr. Corbett goes on to point out: "With big-name sports events on television, the amateurs and the small clubs can't keep their doors open. This will retard the development of talent at the grass roots. Small college athletes are particularly hard hit by the televising of big university games".

Mr. Corbett proposes a meter system whereby receivers would be fitted with a mechanism that records the time and station to which the station owner is tuned. These meter rolls would be collected periodically and charges made to the set owners similar to a telephone bill. Compensation would then be made to the various programs in accordance with their drawing ability. There are many merits in what Mr. Corbett proposes; drama and variety programs would improve immeasurably, competing as they would be for the television set owners' money and sports promoters would receive compensation comparable to the gate appeal of their attraction.

What Mr. Corbett fails to mention and what worries us most is the plight of the little fellow. Mr. Corbett recognizes the problem of the small school, as witnessed by his quotation in the fourth paragraph of this editorial. The Notre Dames, California's, et al., will receive compensation but what of the Slippery Rocks and Valley Highs?

Every reader of this page should have a vital concern in the matter of televising athletic contests. Frankly we feel that television is the most serious problem ever encountered by school and college athletes. We would be most interested in hearing our readers' reaction to this matter. Specifically, we would like to receive actual facts as to television's effect on attendance.

Volume Thirty

WITH this, the largest issue in our history, we launch volume thirty. Few coaches are active in the game today who were coaching when this publication was founded. Of 547 football coaches at major institutions only 41 were coaching prior to our first issue.

As we start our thirtieth volume it might be well to reprint the purposes of the Athletic Journal as set forth in Volume 1, No. 1. "The publishers of the Athletic Journal believe that there should be a medium through which coaches may exchange ideas and students of athletics may receive discussions pertaining to the leading athletic sports. The Athletic Journal is intended primarily for athletes and coaches of high school and college. It is our purpose to deal almost exclusively with one phase of Physical Education—Athletics. We believe that both players and coaches are concerned not so much with news items as with the fundamentals and technique of the major sports."

Today the Athletic Journal has more subscribers than all other coaching magazines combined. However, we feel that we are never too old to learn and, therefore, welcome suggestions as to how we may be of more service to the coaching profession.



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Simplified Signals

By DUKE GREENICH

Football Coach, Cocoa, Florida, High School

AT THE START of every football season the players are worked to death both mentally and physically. Physically, they may be doing calisthenics, blocking, tackling, wind sprints, punting and covering, passing and receiving, etc. Mentally, they may be concerned with the blocking form, punting form, offensive stance, or defensive stance.

Lack of necessary time between the first day of practice in the fall and the first game is a handicap. All coaches know the boys are tired and have aching muscles and bones. Many of the players are concerned as to how they are doing and if they are doing things right or wrong. They often worry about every little flaw or error. The big headache to the coach and players is knowing the signals. The coach gets irritated because the boys don't learn their signals, and the boys get upset because they cannot distinguish the difference between plays.

Many coaches limit their number of signals to 15 or 25 plays and expect the boys to memorize every play and be able to carry out their assignments on each and every play.

As I see it, each signal should inform the players of four things:

DUKE GREENICH played varsity football, basketball and baseball at the University of Mississippi before graduating in 1943. He played with the Chicago Bears in 1944 until a knee injury forced him to retire. He coached at Howe Military School, Woodstock, Illinois and at Jonesville, Michigan before going to his present post.

1. Who the ball-carrier is.
2. What hole the ball-carrier will run through.
3. The type of line blocking.
4. The type of deception.

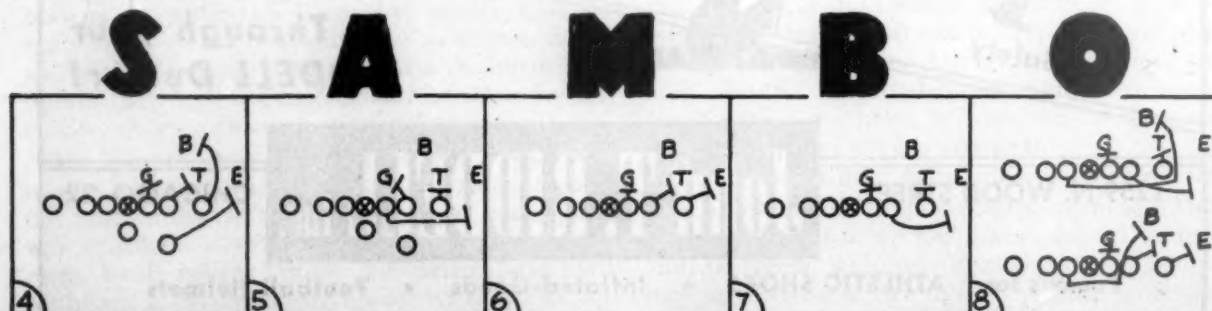
The first factor of importance is who the ball-carrier will be. A simple way of clarifying this is to number the backs in series of tens. In the case of the T the 10's would be the quarterback, 20's the left halfback, 30's the fullback, and 40's the right halfback. In the single wing the 10's would be the tailback, the 20's the spinning back, the 30's the blocking back and 40's the wingback.

The second factor, knowing the hole to be run through, may be determined a number of ways, such as: The holes may be numbered from left to right or right to left. Using zero as

the hole directly over center, all the holes to the left should be numbered with odd numbers and all the holes to the right of zero with even numbers. Some coaches like to number the holes over the offensive position, whereas, the most commonly used system is numbering the actual defensive holes.

In using the system of numbering the actual defensive holes there must be a clarification between a seven-man line, six-man line, five-man line, and in rare cases of a four-man line. Using the even numbers to the right and the odd numbers to the left, end sweeps are always the eight and seven holes, between the tackles and ends the six and five holes. Against a seven-man line the zero hole is eliminated entirely. (Diagram 1.) With a six-man line the zero is good but there are two extra holes, therefore the two and four become the same hole. Likewise with the one and three holes (Diagram 2). Encountering a five-man line the zero hole is eliminated and the two and four are the same hole; likewise, the one and three are the same (Diagram 3).

If the zero hole is called, anticipating a six-man line, and the defense jumps into a seven-man line, the



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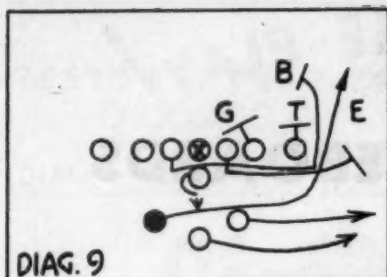
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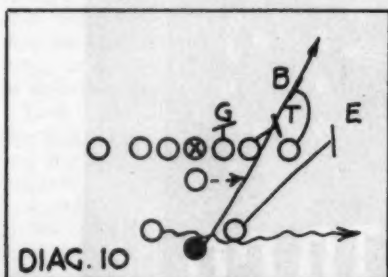
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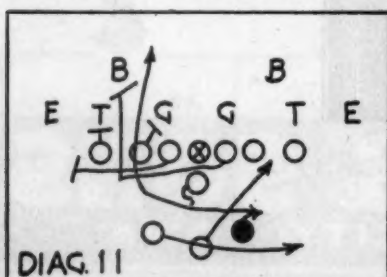
zero may automatically become the one or two hole. If the two hole is called against a seven-man line and it changes to a five-man line it becomes the same as the four. This because the two and four hole against the five- and six-man lines are the same.

Combining factors 1 and 2 we have the ball-carrier and the hole. In using two digits, the first digit means the ball-carrier and the second digit the hole. In the T, a 23 play would be the left halfback running through the three hole. In the single wing the 23



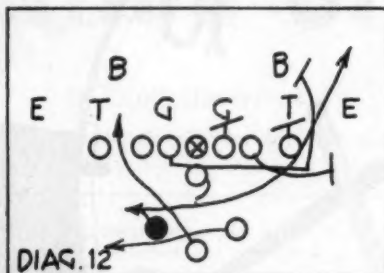
would be the spinning back running through the three hole or the weak or left side of the line.

Line maneuvers under some systems are very complicated and the only way to know the plays is to memorize them. When using a system such as the formula the players need only to know the hole and the pattern. Let me introduce you to *S A M B O*. *S* means guard on tackle, tackle on tackle, end on linebacker and halfback on end (Diagram 4). *A* means guard on end, tackle on guard, end on tackle, halfback on linebacker (Diagram 5). *M* means man-former or guard on guard, tackle on



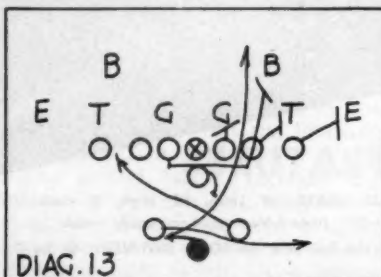
tackle, end on end, halfback on linebacker (Diagram 6). *B* means guard on guard, tackle on end, end on tackle, halfback on linebacker (Diagram 7). *O* means offside guard on end or linebacker with any of the above mentioned (Diagram 8). Using the T and the even and odd-numbered holes, we call a 26 A O. This is the way it looks (Diagram 9).

The type of deception to be used pertains to backfield maneuvers only and does not concern the linemen. *The Cheats, Take-offs, Crossbucks,*

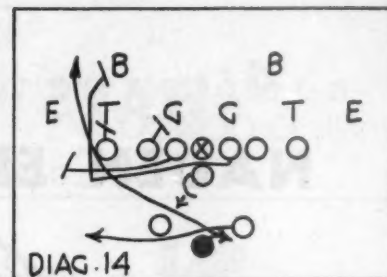


and *Behinds* are known as series. The *Take-offs* could be called "quicks" because they hit directly into the hole with no delays or head and shoulder fakes. A 32 S take-off is shown in Diagram 10.

Crossbucks: If a 40 S crossbuck is called the fullback fakes a 34 take-off and the right half makes a head and shoulder fake to the right, allowing the fullback time to make clearance. The left half may be in motion or run a fake 28 (Diagram 11). On a 20 S crossbuck, the fullback fakes a 33 take-off, the left half makes a head and shoulder fake to



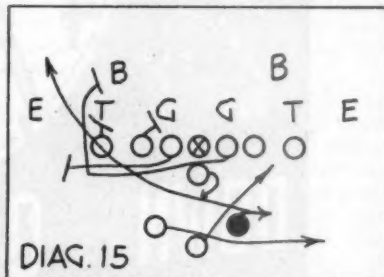
the left allowing the fullback time to make clearance, the right halfback may be in motion or run a fake 47 (Diagram 12). On 30 S crossbucks to the even holes, the right half fakes a 43 or 45 take-off. The fullback makes a head and shoulder fake to the left allowing the right half to get by. The left half may be in motion or fake a 28 (Diagram 13). On 30 S crossbucks to the odd holes, the left half fakes a 24 or 26 take-off, while the fullback makes his head and shoulder fake to the right



allowing the left half to get by. The right half fakes a 47 (Diagram 14).

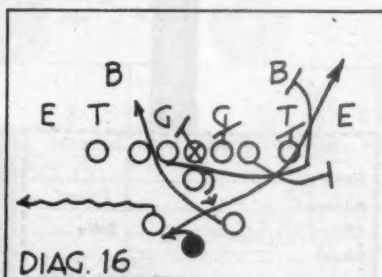
We have established the ball-carrier, the hole, and the type of line blocking which will always remain the same. Actually, the number of deception plays will determine the number of plays a team will have. Theoretically, the crossbuck series is one play, but with all the various maneuvers there are approximately three hundred variations of this play.

When the quarterback calls a play all the linemen need to know is where the hole is, the type of block-



ing, and the snap signal. The backs must listen to the entire signal to learn who the ball-carrier is, the hole, type of deception, and the snap signal. Diagram 15 shows a typical play.

Two more variations of this play may be called (other than what already has been explained) by putting the left halfback in motion to the right or left. In putting a halfback in motion it should be understood that the right half always goes to his left and the left half always to his right. With a halfback in motion opposite, the right half goes to his right and the left half to his left (Diagram 16).





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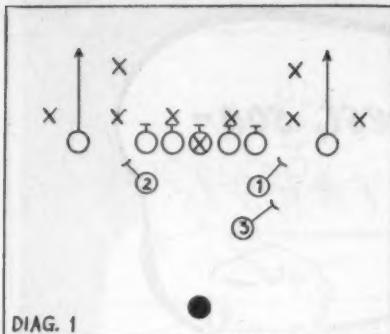
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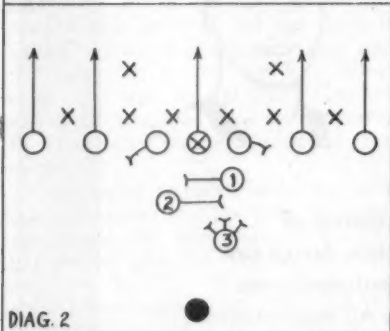
Stagg Spread Punt Formation

By ROGER BAER

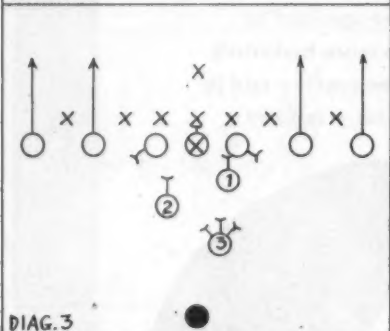
Football Coach, Santa Cruz, California High School



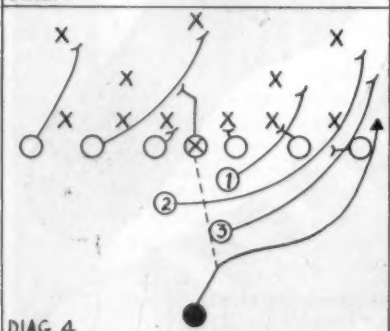
DIAG. 1



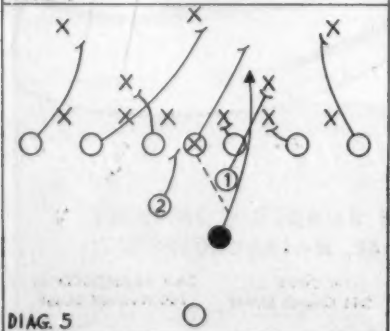
DIAG. 2



DIAG. 3



DIAG. 4



DIAG. 5

AMOS Alonzo Stagg, the "Grand Old Man" is well known for his many contributions to the modern game of football. In over fifty years of active coaching, his defensive and offensive innovations have become an integral part of the systems of many successful college and high school coaches. In my opinion, one of his soundest developments, and one which has not received the recognition it warrants, is his spread punt formation.

The Stagg Spread Punt proved itself a potent offensive weapon as well as another kicking formation in 1940 when his under-manned College of Pacific team defeated the University of California in the most startling upset of the season. Unbelieving spectators saw the heavily favored Bears literally "kicked out" of the stadium by an opportunist C.O.P. eleven that recovered three fumbles at crucial points in the game. These bobbles did not occur during running plays, but were occasioned by the California safety being tackled by several Pacific linemen at the moment he caught the ball. These mishaps unnerved the entire California team and kept them in a hole from which they were never able to recover.

This major victory was not an isolated incident in the long tenure of Stagg at Pacific. Many other winning games, before and after this contest, were set up by the pressure of the spread kick. And Stagg's amazing record of holding vastly superior teams to low scores was often due to a judicious use of his spread formation.

The most obvious value of the spread kick is in its ability to hold the opposition to negligible yardage in runbacks. This, coupled with the element of pressure generated by sending five linemen down in the first wave, adds to the possibility of capitalizing on mistakes made by the safety. One factor usually overlooked, however, is the almost unbelievably small percent of kicks blocked by Pacific's opponents. During the four years I played at Pacific, I do not recall a single blocked punt and I believe that only two or three were blocked in the fourteen years Stagg was at the Stockton school.

This record will compare with that

of any eleven in the country and is more amazing when one realizes that every opposing team was concentrating on a means to stop the kick. They hit the center at the time of the snap; had their linemen cross their charges; overloaded zones; crashed the linebackers; tried to hold men on the line of scrimmage, and formulated other schemes, none of which proved successful. One indication of the success of the kick was shown in the practice several schools adopted of having their safeties signal for a fair catch after the kick was made.

When I began coaching after graduation from Pacific, I was undecided as to the advisability of using the spread punt. I was sold on it personally, but was not certain of the ability of immature high school players to handle it. After experimentation, however, I found that, with certain modifications, it could be used with success by average high school material.

Let us compare the spread punt, as used by Santa Cruz High, with the standard or close line punt. The orthodox kicking formation (Diagram 1) sends the two flanking linemen down on the snap of the ball. The five center linemen usually form a solid blocking wall, making certain that no opposing men penetrate, and that the linebackers do not jab through. The Number 1 back takes the territory behind his right tackle. The Number 2 back protects behind his left tackle, and Number 3 blocks behind Number 1.

This commonly-used method of protecting the kicker is safe but it has obvious disadvantages. In the first place, only two men go down in the first wave. This is risky if the opposition has a dangerous runner in the safety position, or if they employ the double safety with its manifold options of reverses and fakes. Then too, many teams further

ROGER BAER played three years of varsity football under Amos Alonzo Stagg at the College of Pacific. He was chosen all-conference end in 1937. He acted as assistant coach at Pacific in 1938 and as head coach and athletic director at Ripon, California, Union High School before taking his present post.

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weaken their coverage by having their left end block the opposing right end if he shifts into the slot before the snap. This practice of placing the entire responsibility of covering the first wave upon one man is perilous to say the least.

We deploy our men in the spread punt formation in the following manner (Diagram 2):

The guards are split from the center by two yards. The tackles are spaced from the guards by five yards, and the ends are five yards from the tackles. We use our fastest linemen on the two outside positions. The Number 1 back lines up about two yards deep behind the inside shoulder of the guard. The Number 2 back is half a yard deeper on the left side, and the Number 3 back is stationed about four and one-half yards from the line of scrimmage on the punter's kicking side. The kicker is placed from ten to twelve yards back, depending upon his speed in kicking.

On the snap, the ends and tackles immediately cover the kick. The center joins the first wave if he is not jammed by the opposition. It is important that he concentrate on an accurate and fast pass to the kicker before joining the chase. It is interesting to note that the center usually makes the majority of tackles on the safety.

Our guards take the men on their outside shoulders. In making this important contact, they step out with the same technique they would use in pulling. A cross-body block is used in steering the opponents away from the kicking triangle. It is not necessary that they take their men down, but that they play a semi-waiting game and keep the rusher from penetrating to the inside. A clever guard can run his man straight back without endangering the kick.

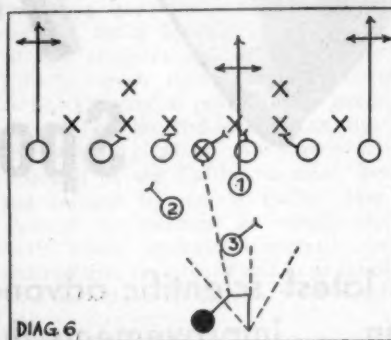
The Number 1 and 2 backs cross and take the two inside men with shoulder blocks. This should be executed with the head up and eyes open, exercising care that the cross is not made so fast that the inside men are missed. The Number 3 back is not assigned a definite man. He looks first to the vulnerable inside spot and then takes the most dangerous man coming through.

In many instances the defense will overload the center, putting three men inside our guard with a back immediately behind (Diagram 3). When this occurs, one of the up blockers will signal for straight blocking and the expected cross will not materialize. The center does not go down in the first wave. This usually

results in a jam over center, preventing a direct break-through.

Sometimes two linebackers will crash simultaneously. If they break through and are more dangerous than the assigned linemen, they are taken by the Number 1 and 2 backs. It is impossible to prevent an occasional secondary man from getting through, but the fact that the punter is as deep as twelve yards and is kicking with a space-saving step, makes it unlikely that he will bother the kicker unless the center pass is poor.

Coach Stagg spent considerable time in teaching his punters a one-step kick. His punters were taught to stand with the kicking foot slightly advanced. At the instant the ball reached the kicker's fingers he would roll or rock back on the heel of the kicking foot, bending the back slightly without moving the other foot. He would then step forward with the balance foot and kick. This new style seemed awkward at first but after



practice the punter was able to obtain his usual yardage in a much shorter space of time, and with less movement towards the rushing line.

In illustrating the importance of modifying the usual kicking form, I recall a conversation I had with a guard who had played against Pacific. This player told me he was convinced that no blocking was necessary in the spread punt. In the game just played, he had on one occasion, lined up just to the outside of Pacific's center and had gotten a good charge at the instant the ball was snapped. He had not been blocked all the way through the kicking triangle, but was still unable to touch the ball. Probably a perfect snap from center and a quicker kick than usual explained the narrow escape, but this episode is indicative of the speed with which the ball is kicked in this formation.

Unfortunately, I found that with the limited practice time allotted to

my high school squad, I was unable to secure satisfactory results in teaching the one-step kick. After experimenting, I compromised on a one-and-a-half-step kick which did not prove such a radical departure from the high school kicker's natural form. My kicker stands with the left foot slightly in advance of the right, or kicking foot. The hands are outstretched and are held about waist high, with the fingers and wrists relaxed. The eyes are stationed solely on the ball and the entire body is maintained in a relaxed position that will permit rapid movement in all directions in case of a bad pass from center. The kicker steps back with the left foot when the ball is almost in reach. Simultaneously with this backward rock, a short jab step is taken with the right foot, followed by a natural step with the left as the ball is kicked. We practice this step every day, insisting on its execution even when the ball is being kicked without a center.

I have found that the use of a stopwatch is a splendid motivating agent in reducing the time of getting the ball into the air. The kickers enter into the spirit of competing against the clock and the comparative times of their team members.

We have found that the spread punt becomes more effective when we run and pass from the formation. We often run as well as kick on third down to keep the opposition from devoting complete attention to blocking the kick. We have, contrary to accepted strategy, run from punt formation on fourth down when we have observed the defense crowded over the center or spread too thinly. The signal to run is given orally after we are in kicking position.

An end sweep is shown in Diagram 4. This works equally well to either side. The key block is made by our right end who uses a cross-body block with his head to the left on the opposition's end. This is not a difficult assignment, particularly against an end that drifts in the direction of the run. If the defensive end is crowded inside our right tackle, he is handled by that man and our right end is free to work on the secondary. A buck (Diagram 5) is effective if the defense spreads, expecting a sweep. Diagram 6 shows an optional pass from the spread.

To summarize, I believe that the average high school squad can handle the spread punt formation. It is every bit as safe as the orthodox method of kicking and has advantages that will add variety and balance to the attack.

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Short of Material? TRY THE SHORT PUNT

By JOE M. BLOUNT

Football Coach, Hughes Springs, Texas, High School

IN THIS discussion of the short punt formation I am not trying to sell anyone on it, but rather I wish to emphasize its potentialities if the material is limited.

Last season we had seventeen squadmen and this shortage made it necessary for several smart boys to learn two positions. Our line averaged 145 pounds and the backfield was two pounds lighter. Our record against T teams was six wins against one loss.

We use a balanced line, tight, with the ends spread about a yard and a half against all defenses with the exception of the five-man line. We feel we can weaken a five-man line a little by splitting our linemen about six inches. For the arrangement of our short punt formation, holes, and number of backs see Diagram 1.

This type of punt formation resembles the T in that the quarterback (1-man) is close enough to the center to take snaps and give hand-offs. The 4-man, our blocking back or wing-back, is constantly cheating to the right and left and this gives our punt formation the features of the single wing. We use him in motion quite a bit and especially if we can find a defensive halfback that is weak defending against passes. By placing him in motion we can put our best pass-receiver against the opponents' weakest defender.

There is no formation that affords better balance than this type of punt

formation. It can hit to either side with the same amount of zest by using the man in motion and cheating backs just a little. The only short-coming is that it is not very strong to the weak-side outside.

The location of the backs makes the attack ideal for deceptive ball-handling and an excellent lateral-passing game.

As the name of this formation implies, it is the best with which to quick-kick, and we believe the quick kick is one of the best offensive plays.

Why look any further for a passing formation? The short punt has one

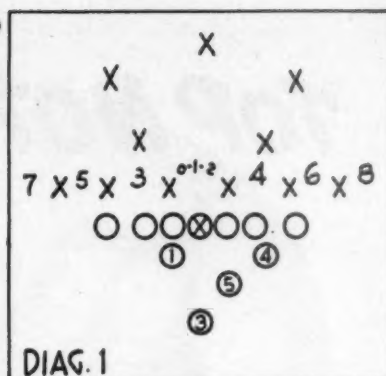
JOE M. BLOUNT played high school football at Gilmer, Texas and college football at the University of Texas under Dana X. Bible. During the war he served as an athletic instructor in the Navy. According to the Texas Coaching School, last year he was the youngest (23) head coach in Texas.

of the best passing attacks, both from the standpoint of getting receivers out and protecting the passer.

Many coaches argue that the punt cannot provide a strong off-tackle play. They say that there are no flanking backs to help the ends work on large tackles. Our favorite play, and it gained more ground than all others last year, was an off-tackle run. We set it up with a wide end-sweep with the idea of making the defensive end respect our fast little backs. At the opportune time our back would cut back inside the end for sizeable gains.

We base about ninety per cent of our passes on our best running plays and they click. Pass completions, no matter from what formations, are the backbone of any well-balanced running attack. They make the defense play honest, and against an honest defense, punt-formation teams look good.

One T formation coach remarked, "We don't block. We just shake

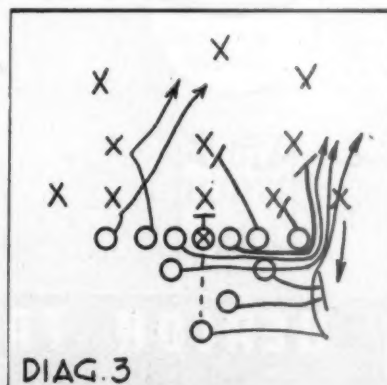
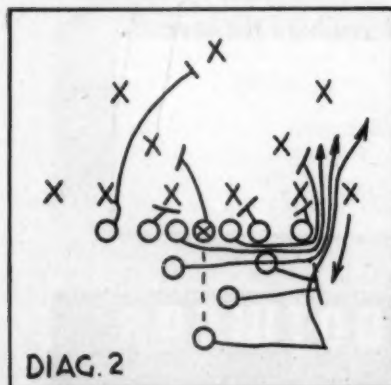


hands with the defense and go on down the field." He is the same coach that sport writers describe with a thousand adjectives a year telling about his great teams. What an array of material he must have! Can you imagine a coach with seventeen boys who average 145 pounds using that style of attack? We have to put two little men on the defensive man at the vital point of attack or else we couldn't make a foot. We stress hard and vicious blocking and with it we can go to the right or left. The mastery of such fundamentals is also a shot in the arm for one's defense. Statistics prove that blocking formations afford the best defensive combinations.

The majority of opponents play our punt formation with a 6-2-2-1 defense. We mimeograph all of our plays against the six-man line. (Diagram 2). It is difficult for boys to learn plays against the four-, five-, six-, and seven-man lines.

During the course of a game we often meet the 5-3-2-1 defense. Our boys apply a rule to this situation. "The center blocks the man in front of him and the rest of the blockers carry out their assignment to the position."

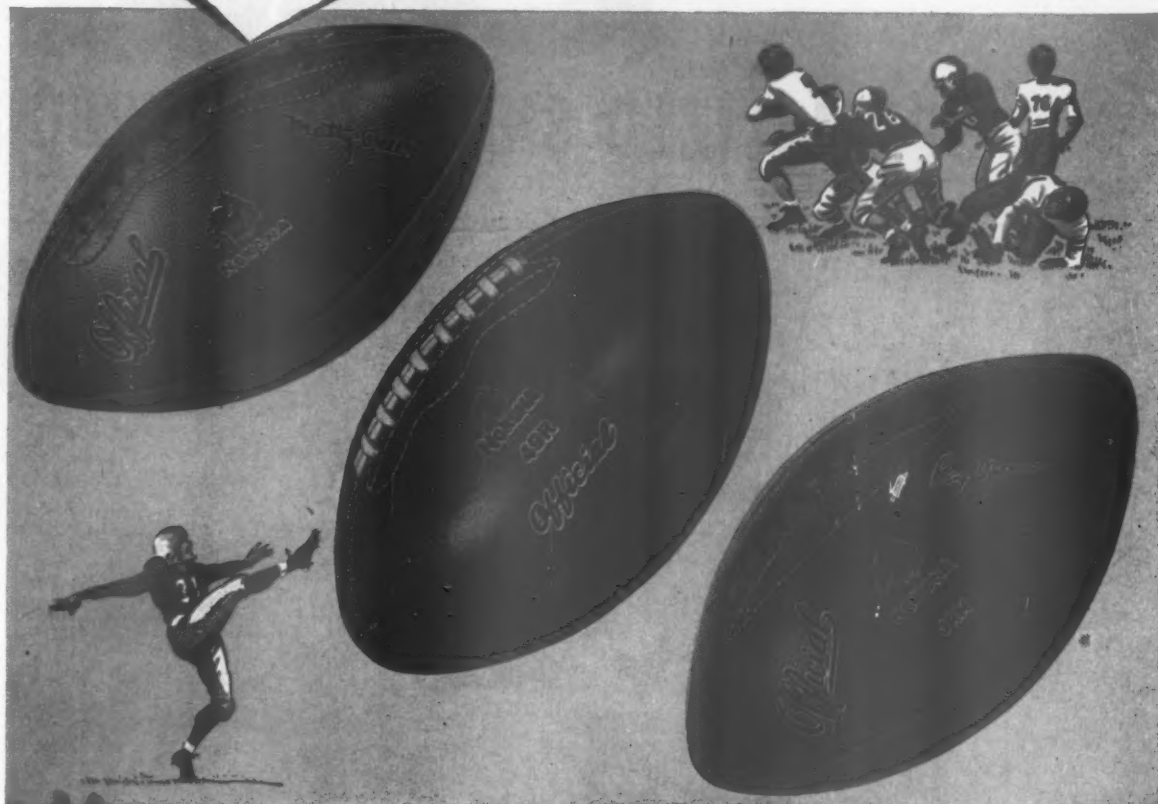
(Continued on page 78)



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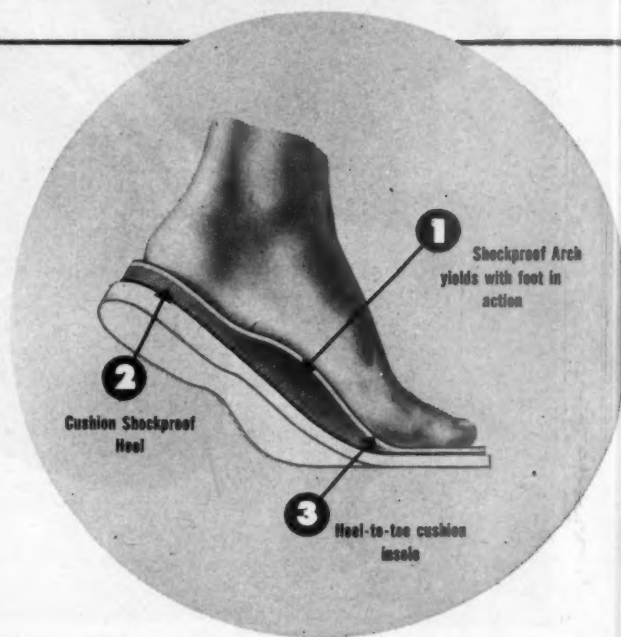
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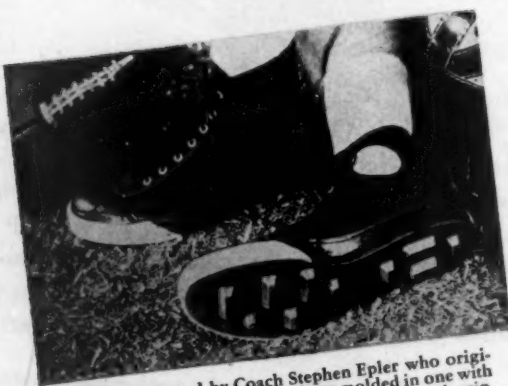
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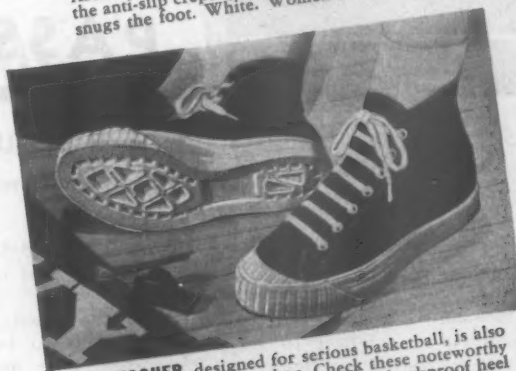
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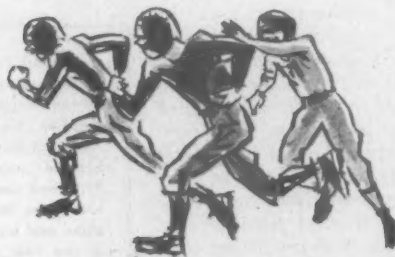


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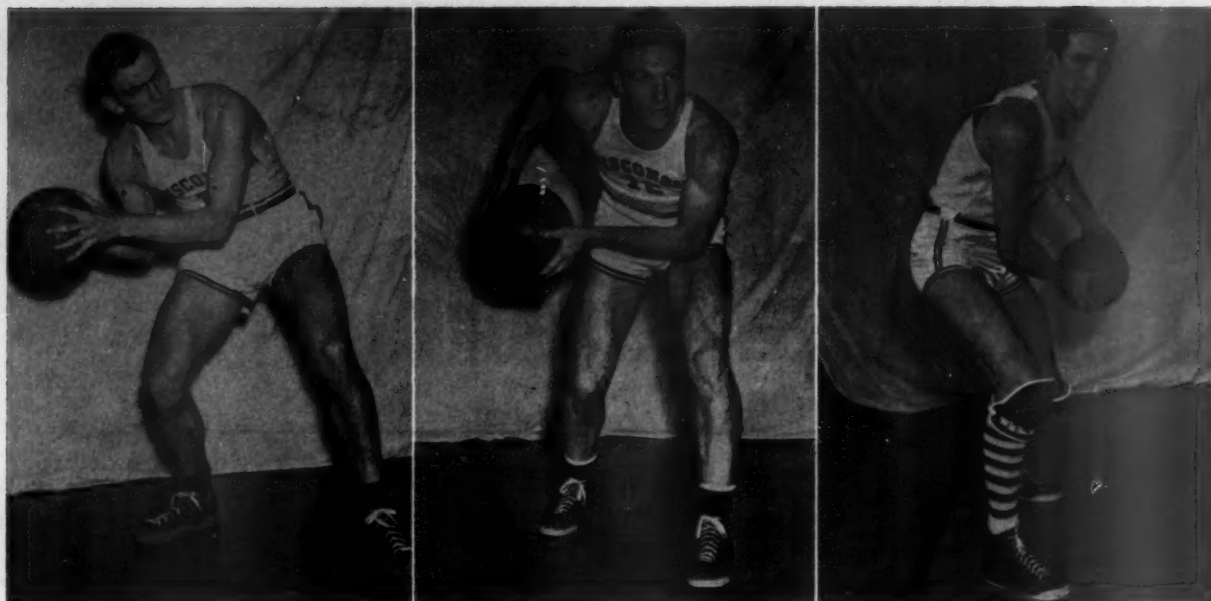
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In the illustration at the left the player is displaying good control of the ball. The center picture shows good form for the under-

handed hip-pass. The picture at the right shows good passing position for an underhanded short pass. The ball is protected by the body.

BASKETBALL FUNDAMENTALS

PASSING

By H. E. "BUD" FOSTER

Basketball Coach, University of Wisconsin

ACCORDING to Webster's Dictionary, a fundamental is "a principle, rule, law, or article which serves as the groundwork of a system."

Fundamentals in relation to basketball are certainly the groundwork of that system and to me are the most important part of teaching and playing basketball or any other game. No matter how good the material may be or how fine a system is, it is only as good as the fundamentals used in that system or as good as the individuals can perform those fundamentals.

In basketball there are many kinds of fundamentals that fit the different systems of the game and to know which fundamentals to teach a coach should first pick out the type of play he desires to use. In choosing a style of play the coach must consider his competition, pick out something that should do well against his opponent's offensive and defensive style and fit

the playing areas that his team will be forced to play on during the season.

After the coach has decided on a style of play to be used he should pick that style apart and discover what fundamental movements are used in making that system produce points on the scoreboard.

At the University of Wisconsin we

feel that we have a fine set of fundamentals for our style of basketball, but that they would not be of much value to a coach who is using a different system.

At Wisconsin, we use a basketball style known as the short-pass game. All men move in patterns that result in many screens which create openings for shots. Our present system is based on the basketball that Doctor Walter E. Meanwell introduced to the mid-West thirty years ago with great success. We have retained parts of this system along with the fundamentals on which they are based.

Of all the fundamentals used in basketball, passing, in my mind, is the most important. Without good passing a team is helpless in carrying out an offensive plan or even in earning a reasonable number of good shots at the basket. Passing drills are all important to us. They are the first funda-

HAROLD E. "BUD" FOSTER played basketball at Wisconsin where he won all-conference honors at center in 1929 and '30. He was also named to the All-American team in the latter season. He became varsity coach at Wisconsin in 1934 and since that time his teams have won three Western Conference championships and one NCAA championship. This is the first of four articles on fundamentals.

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Sodium propionate	12.3%
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2 oz. bottles	12.9%

mentals taught and they are continued until the squad is sound in this department.

In our style of play, the passes needed are short, underhanded hip-passes, short bounce-passes, double passes, hook passes and push passes. Drills on these passes are continued until they are mastered by the players at the start of the practice season. During the year they are used as warm-up and brush-up drills.

In teaching the short hip and bounce-passes, we divide our squad into two lines about twelve feet apart, the lines facing each other with spacing between the men's outstretched arms (Diagram 1). These short passes are made by giving the ball to a man at the end of the line who passes to the man facing him. The passer follows his pass and the receiver comes in to meet the ball and, in turn, passes to the next man in line without breaking his stride. The ball moves up and down the lines with each handler moving from side to side as he passes the ball. In this drill we have the passer's path continue on the side away from the next pass.

The short hip-pass, as we use it, is an underhand pass thrown with an arm swing. The players should grasp the ball on each side with their fingers spread. The feet should be spread one before the other and the ball swung to the hip that is back. The elbows should be kept in, the trunk bent forward and the head up so the player can look ahead. In passing, the ball should be brought forward with the back foot following until full extension of the arm is reached. The wrist should be kept stiff so that no spin is put on the ball. The ball should slide off the ends of the fingers. The passer's target should be the belt buckle of the receiver. The latter should advance toward the passer with his arms outstretched and a funnel made out of his fingers. After taking the ball, the receiver should swing it back to his hip in stride and repeat the process to the next receiver.

After the boys get into the swing of this pass they may finish up the pass by rolling the ball to the palm of the hand nearest the receiver and giving it a straight, gentle push into his waiting fingers. Other than teaching ball-handling, this drill teaches following the pass and getting the receiver to come into the ball (Diagram 2).

The short bounce-pass that we use is taught from the same formation and varies from the hip pass in that, at the time of releasing the ball when the arms are extended, a reverse spin is put on the ball by turning the thumbs down so that after hitting the floor the ball comes out of the bounce at almost a right angle. The ball should hit the floor about half way between the passer and the receiver when the ball is released and it should be soft enough not to bounce higher than the belt of the receiver. As the players master this pass they are allowed to lay down one-handed bounces, both right and left hands being used, depending on which is nearer the receiver. Another step ahead is mixing these two passes in the two-line drill letting the passer decide which of the two types he should use.

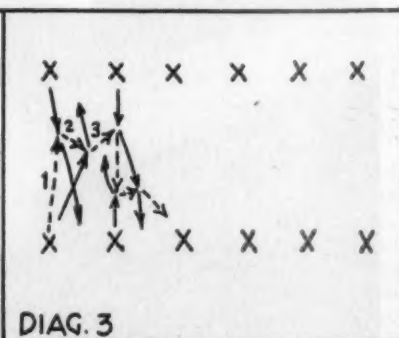
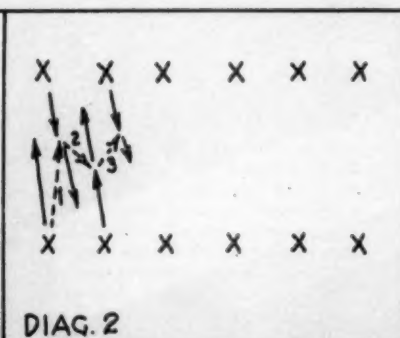
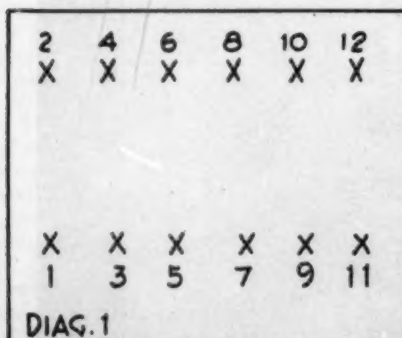
I think that the bounce pass should be stressed more and more in basketball as it is the best way to get the ball through a defense. Going under a defense is better than through it and it is faster than going over the top with lob passes. As the bounce is mastered, feints must be added to make the pass effective. We discourage wild feints with the arms and would prefer to have the players use eye feints or slight shoulder rolls. A long bounce-pass may also be taught but should never be used unless the defense is close to the passer. On a long bounce-pass, front spin should be put on the ball so that it will carry the distance.

In our system of basketball the double pass is an all important fundamental. The double pass often fools the

defense while the single pass does not. I think that the double pass is the big difference between a simple offense and one that is advanced as it opens the door for fakes, spins, cuts through defensive shifts and the like. In the double pass the passer must pass the ball to a receiver, follow the pass, get it back and then pass to a third man. We use the same two-line formation (Diagram 3) with a greater spread between lines. The passer throws a hip or bounce pass to the receiver who should take the ball about one-third of the way across the space between the two men. The first passer follows the ball on the side of the next pass and takes a short turn-pass from the receiver; while still on the move he hits the third man with a short, soft pass. The receiver of the first pass, after meeting the ball with extended arms, rolls it to the right or left palm, depending on which side his partner is coming, letting his arm swing in an arc moving in the same direction as his receiver is moving. The ball is delivered with a slight raise of the arm with the fingers directing it into the outstretched fingers. The third man, after taking the short pass from number one, repeats this action with the fourth and fifth man.

In teaching the double pass, the set-up shown in Diagram 4 should be used. The first passer must go on the side of his next pass. After the timing on this double pass has been learned, teaching may be advanced by having the receiver stance with a one-count stop as he catches the ball; as he makes his turn pass he should take a crossover-step away from his receiver on the turn pass and push his body in the opposite direction. Later, using this maneuver in scrimmage, a screen will be made against the defensive man. These three passes may be developed by optional milling by putting five men on the floor, jogging where they wish, using these types of soft passes at their own option. One minute of this at a time is

(Continued on page 78)





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Six-Man Strategy

By FRANK WAMBACH

Coach, Cannon Falls, Minnesota, High School

FRANK WAMBACH graduated from the College of St. Thomas in 1943 where he played football and was selected for the all-conference team in 1941 and '42. Before going to Cannon Falls he coached at Morgan, Minnesota where his teams won 16, lost none.

TO HAVE a winning team a coach must employ, on a broad scale, all his knowledge of football tactics to gain advantage over his weekly rivals. Six-man football is mostly an offensive game and the coach should keep that in mind when planning for the season.

In starting the football season the player that will help the coach the most is the quarterback. A great deal of thought must govern the selection of the right man for this position. The quarterback must be a leader and a player that all the other boys respect. He must be able to weigh values and have sound judgment on the field.

After the coach has selected the best boy for the quarterback position he should teach him the things he must do under most circumstances. On the first five or six plays the quarterback should find out the strength of each end, whether the center charges in fast, and how fast the backs come up in the secondary.

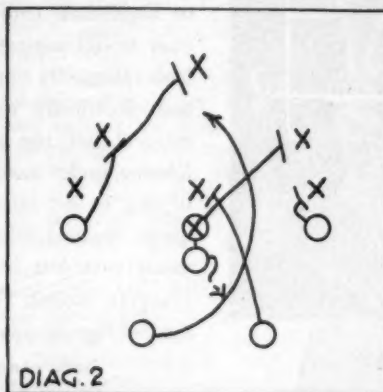
In his own running zone, from the goal to the forty-yard line, he should use simple plays to get into offensive territory. These plays should be safe plays and ones that have the chance of making a long gain without danger and that feel out the defensive team. When on the forty-yard line, a strong play should be used on first down. If the required yardage is not made in three downs the quarterback should always kick on the fourth down unless it is just before the half or the end of the game and only a yard or two is needed for a first down. If the receiver is a fumbler the kicks should be high and to him: if he is

not, the ball should be kicked out of bounds as close to the goal line as possible.

When on the forty-yard line long passes should be thrown on second down if the secondary is playing up and no gain was made on first down.

When on the thirty-yard line the best play should be used on first down. This should be a trick play—a reverse or lateral is good. This should be followed with short passes, depending upon where the defensive backs play. One play that I found to be very good in bringing the ball down to or over the goal line from the thirty-yard line is a triple reverse.

There is one thing that may be fatal in the scoring zone and that is to delay. The offensive pattern should not be changed unless the offense has been stopped. In this event



a special scoring play, or a play which should be effective because of some peculiarity in the opponents' defense may be used. Forward passes should not be used in the scoring zone until at least second down. If close to the goal line or close to a first down in the offensive territory, the offensive man who can usually make the necessary two or three yards should be used.

Whenever the defensive team presents a glaring weakness it should be taken advantage of immediately, regardless of the tactical situation. This often occurs when the defense moves into an unorthodox defense.

The other five men on the team may be a big help to the quarterback and they should be encouraged to talk strategy to him. This will enable all the men to see the quarter-

back's point of view when he calls a play. The ends should inform the quarterback whether the defensive ends charge down the inside or outside of them. The center should report whether the center drifts or charges in. The backs should advise him whether they have been open on pass plays. In this manner the quarterback gets information for the next play.

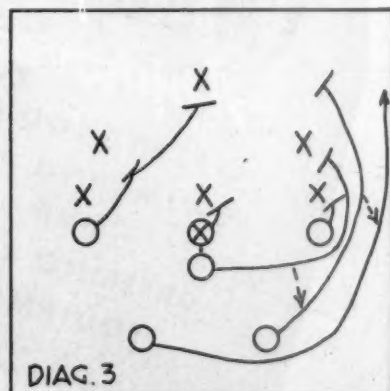
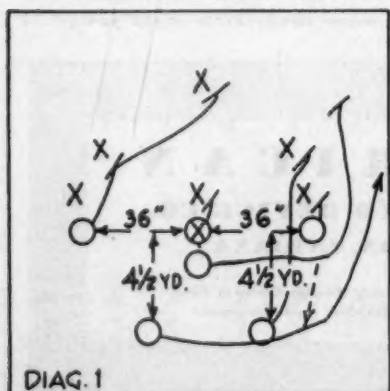
Between the goal and the forty-yard line an end sweep was our usual procedure after the opening kick-off (Diagram 1). The play is run from the modified T formation. The quarterback takes the ball from the center and comes out of his position fast. After taking several steps, and before he crosses the line of scrimmage, he makes the necessary clear pass to one of the tailbacks, depending in which direction the play is being run.

Diagram 2 shows another play that may be used between the goal and the forty-yard line. One of the tailbacks takes a hand-off from the quarterback and drives between the end and center. The other tailback blocks hard on the defensive center while the center blocks the opposing linebacker.

A lateral is always a good play when approaching the forty-yard line. A good lateral is shown in Diagram 3. The right tailback should not lateral until after he crosses the line of scrimmage, or better yet, until just before being tackled.

When between the forty- and thirty-yard line in offensive territory a

(Continued on page 76)





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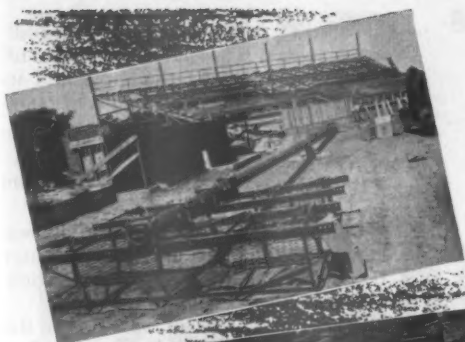
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53 — 80-foot poles	25 — 40-foot poles	42 — 25-foot poles

See the ad on the opposite page for the many advantages you gain by using Monotubes. Then phone or wire for a quotation on your requirements. Act quickly and have your sports field ready for nighttime use this fall.



The Union Metal Manufacturing Company

CANTON 5, OHIO



How to install Floodlighting

WHILE

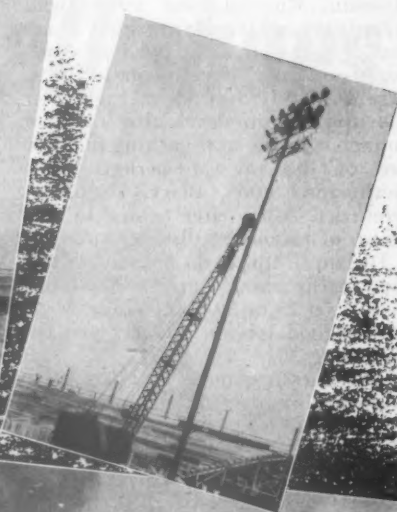
"KEEPING YOUR FEET
ON THE GROUND"



....with

MONOTUBE

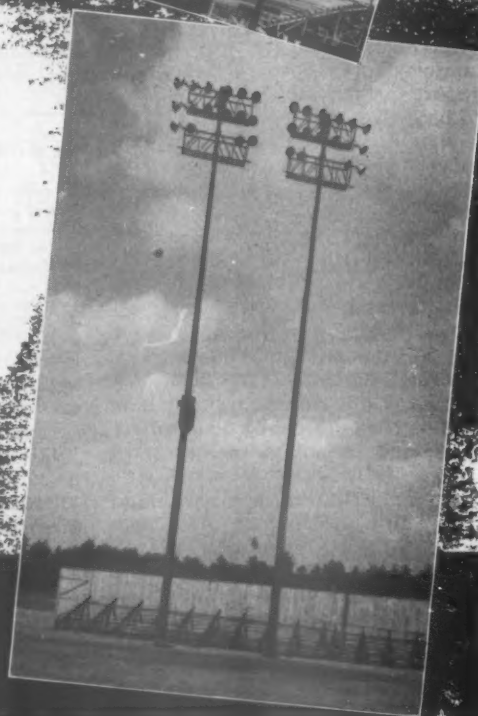
tapered steel poles



HERE, "keeping your feet on the ground" has a *double* meaning. As the pictures show, Monotube poles can be completely wired, lights mounted and positioned *on the ground* before erection. Consider the time-saving, the convenience, and the safety factor! Also, with anchorage-type base construction, erection itself is simplified, permitting fast, safe installation, with positive alignment and avoidance of ground-line deterioration.

In choosing streamlined Monotube poles, you're also "keeping your feet on the ground" from the standpoint of appearance and sound, long-lasting, low-maintenance floodlighting practice. These attractive tapered steel poles, circular in section, offer a big, extra margin of strength-per-weight to withstand wind loads and other stresses *without guying*. Their rugged, safety platforms permit fast, safe cleaning and servicing of lights by unskilled labor.

Yes, for these and other reasons, you'll be wise to specify Union Metal Monotube poles. *Now* is the time to get your floodlighting plans under way. For complete information, write The Union Metal Manufacturing Co., Canton 5, Ohio.



UNION METAL

Monotube Floodlighting Poles

Promoting and Coaching Cross Country Running

By T. E. JONES

Track Coach Emeritus, University of Wisconsin

THE results of the last Olympic Games indicate that we and the English, our original teachers, are inferior to some foreign countries in all events above the half mile.

In the late '30's we had developed a group of top-flight distance runners in such men as Lash, Rice, Mehl, Cunningham, Fenske, Zamperini, San Romani, Rideout, and others who were just reaching their prime. These men would have made our best showing in distances over the mile. With World War II over we are again on the up-grade in developing distance runners who are approaching the calibre of the pre-war period. Wilt, Gerhmann, Stone, Black, Urquhart, Dreutzler, Ashanfelder belong to this group of promising distance runners.

Distance runners do not reach their top performance until physically mature, at 25 or 30 years of age. Most of the good foreign runners are approaching 30.

The encouragement that has been given to distance running by the colleges is responsible for the development of nearly all of our good men in the past 25 years. Many schools, however, still fail to give cross-country running proper encouragement and support in their athletic program.

There is a real need to raise the standard of instruction which at present is low in many schools. Because cross-country running lacks spectator interest, many track coaches fail to show much fervor or enthusiasm in coaching it, preferring to associate themselves with football during the autumn season.

Cross-country training is a good basis for the mile and other sports requiring stamina. The men who go through this autumn training have usually been the best half-milers, milers, and two-milers on our track teams.

The aim of the track coach should be to enlist the interest of a large squad; to teach them how to run and enjoy it and not just to send them out to run as far and as fast as they can without stopping. This only tends to kill their interest in distance running. A coach should jog or walk part of the course with them when possible. If taught correctly

most boys will like this activity—the easy gait, the rhythm, the full breathing. To many, this is the most enjoyable phase of distance running. Any one in normal health and build who has a desire to run and who will practice can be successful in this event.

With the hope that it will help promote the sport in schools where it needs encouragement, I am presenting the programs of three schools that have consistently had good cross-country team records.

The Indiana Program

I asked Tommy Deckard, a former Indiana man now coach at Drake University, to tell how Billie Hayes (who was recognized as one of America's most successful developers of distance runners) developed his great cross-country teams.

Deckard writes that Mr. Hayes believed that cross-country running laid the proper foundation for all the distances above the quarter mile and with a great deal of zeal urged all his prospective track team candidates to participate in cross-country during the fall season.

TOM JONES is one of the nation's top track coaches and has been in the game for over thirty years. Besides having produced numerous champions in all events, Tom was one of the founders of the National Collegiate Athletic Association track and field meet.

He believed in plenty of hard work. His aim was to condition his men until they were very strong, so that both practice and competition became easy.

His program of extended running over hills and through woods on Monday was important in getting ready for pace and speed work for the rest of the week. He stressed the ability to hold pace.

Interest and team spirit were maintained by running over different courses. He always tried to have one or two experienced runners present to set the pace and coach the new men along the course.

Another important factor in Indiana's success was that the school and students recognized the sport and its participants. This encouraged boys to come out for the sport.

The Michigan State College Program

This is given by Lauren P. Brown who built up a fine cross-country record during his 16 years of coaching there.

He says that team spirit was the secret of the success they achieved.

The problem of initiating and establishing the spirit of winning is a slow one that takes thought and work. In developing distance runners a coach must make them realize that their development will come only through hard work and conscientious, intelligent training. There must be created in each contestant a competitive spirit and an incentive to improve.

Pace judgment must be taught by a combination of work on the track and on the open road. Open-road pace is taught through station-to-station running at given distances and times.

"The value of a good warm-up must be stressed. Concerning second wind he says, 'I learned that it took quite a bit of running to get ready to run. We ran many laps, short sprints, and did a lot of calisthenics before beginning the practice run. By this thorough warm-up we brought the onset of the second wind closer to the beginning of the race.'

"Some points of cross-country strategy that we practiced were these: We made it a point to sprint for considerable distance after reaching the top of the hill because this is the strategic place to defeat an extremely fatigued opponent. Our boys also made it a practice to pull up the pace immediately after they turned a corner. We grouped runners with the good boys trying to hold everybody together for the team until they had to go out themselves to better their final position.

"In schedule making we tried to avoid meeting two strong opponents on successive week-ends, especially early in the season.

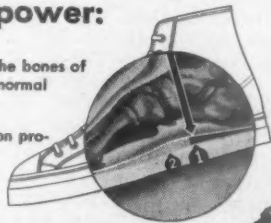
"Our freshman team competition was limited to the local high schools, intramurals, the All-Freshman Run, and the All-College-Run. The distance of the freshman runs was always held to a maximum of two miles.

"We tried to interest boys who had never done any distance running in high school and met with considerable success. Among the best

YOUR TEAM WILL PLAY FASTER LONGER with "P-F" basketball shoes

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more staying power:

1. This rigid wedge keeps the bones of the feet in their natural, normal position.
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Because of *continuous* fast footwork, foot and leg muscles tire more easily in basketball than in any other sport! Your team deserves the extra staying power "P-F" Basketball Shoes give them!

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Get the *most* out of your team! Whether you buy equipment or players buy their own shoes, *insist* on "P-F" Basketball Shoes!

FREE! "Basketball Hints" booklet by Coach "Ozzie" Cowles, University of Michigan 1948 ("Big 9" Champions), University of Minnesota 1949-1950. Diagrams, winning plays, training rules . . . help for every player. Also **FREE**—Basketball Foul Shooting Record Charts. Write today! Athletic Dept., P. O. Box 327, Watertown 72, Mass.

Specify "P-F" Basketball Shoes made only by B. F. Goodrich and Hood Rubber Company

developed were Roy Fehr and Ed Van Auker.

"Our practices were very well organized; 20-30 minutes of loosening-up work, medicine-ball play, push-ups and light, general calisthenics. The running program consisted of over-distance and under-distance work accompanied by planned-pace work. We never worked out at the actual racing distance. Thursday was the last day of practice."

The Wisconsin Program

There is a fascination in working out on the wooded paths along Lake Mendota that aids in holding a large squad. Many who believe they have little chance of making the first team, train faithfully because they enjoy running. Invariably someone in this group comes up to add strength to the varsity team. We endeavor to have a program that includes all students who may be interested. Each training with his own squad, varsity, junior varsity, sophomore, or freshman team.

We never lack candidates, having from 40-50 contesting for the varsity and junior varsity teams.

The most effective means of creating interest and getting out potential material is our freshman schedule. Especially our three Green Jersey races that are run a week apart on mid-week-days starting about the middle of October.

This schedule is posted and published in the school daily. One of the team managers is assigned the task of seeing that the sport gets a little publicity. All freshman team candidates, usually 40-50, run in the first race. The first three men to finish are given green jerseys immediately and are held out of the second and third races where again the first three men to finish in each are given green jerseys. These nine men generally constitute the freshman team which races against the sophomore squad. However, any freshman may enter this race and if he can score ahead of any of the Green Jersey winners, he will replace him as one of the nine who will be awarded freshman sweaters and numerals at the close of the season.

Many inexperienced men, who are potential distance runners, are selected from gym classes who are first observed as they are sent out for jaunts along Lake Mendota. They are then permitted to elect cross-country running as their activity to satisfy the physical education requirement.

The key to teaching the beginner to like distance running is in the pace setting; this teaches him not to be afraid of the distance and also gives him the feel of the second wind.

I permit no racing until pace judgment is learned. Pace is learned by running the quarter mile at a set time of 75-80 seconds, then the distance is increased to the half mile at about 2:30-2:45 minutes, then the three-quarter mile at 4:00 minutes, and finally a 5:30-6:00 minute mile.

Since running is simply a series of falling strides, correct technique should be taught early and daily, stressing relaxed running, ball heel foot-landing, the relaxed ankle, and the forward knee-drop which produce the falling stride.

Ten or fifteen minutes daily should be spent instructing the squad on correct techniques, care of the legs and the feet, and general factors of training.

To develop interest in cross country it is best for a group of boys of the same ability to work out together, having a fast and a slow group in each team if necessary.

The most experienced runner of the group should act as pace-maker with the instruction that no one is to pass him or engage in racing practice.

Another traditional event at Wisconsin is the Annual Turkey Day race run on Tuesday before Thanksgiving. Members of the varsity team are not eligible to compete in this race. The prizes are a turkey for first, a goose for second, a rooster for third, a duck for fourth, a chicken for fifth, and an egg for last. These are contributed to provide the meat course for the annual cross-country team banquet. Former lettermen provide the rest of the meal.

Coaches and athletes should plan their season training program. Much preliminary work of alternate jogging, walking, and easy running is needed early. Each year I write all varsity team candidates on August 1 asking them to start easy training by working out two or three times a week on some golf course or turf so that when they report at school in the middle of September they can stay up with the squad at the twelve minute two-mile pace without over-exerting.

In making out the season's schedule I think it is well to shorten, (by mutual agreement) the distances of the early races and gradually increase the distance to the standard four-mile length as the season advances.

In selecting the team for each meet,

a good plan to follow is to consider the first five who finished in the previous meet as automatically qualified. The others stand trial on Wednesday for the sixth and seventh places on the team.

The symptoms of over-work must be carefully watched. They are loss of weight, loss of running form, a general feeling of fatigue and a dwindling desire for competition. The best remedy is a three- or four-day rest.

We, as coaches, can increase spectator interest in the sport by staging our meets better. A good announcer can bring the race to the spectators while it is in progress by the use of a station-to-station telephone, or, better still, the use of a "walkie talkie" radio set attached to a loud speaker at the finish line. The official results should always be furnished to the press immediately following the meet, giving the order of the finish and the time made by each contestant.

Equipment

Because this is an autumn sport the participants should dress warmly. It is well to protect the head, hands, neck, and arm pits. Failure to do this is often the reason for catching cold. Equipment should consist of track suit, sweat clothes, and two pairs of cross country shoes (short spikes 3/8"). One pair should be for practice, the other for racing. A cotton jersey with quarter-length sleeves should be worn under a sleeveless wool jersey.

The most important part of the equipment are shoes. They should fit comfortably—not too tight. Uppers should be light and flexible, soles fairly stiff with plenty of width under the toes. The heels should be broad to help to keep the foot steady. A quarter-inch crepe rubber heel is advisable so as to bring the heel on a level with the sole of the foot. There is danger of breaking down the arches in running without heels. It is also advisable to wear heavy woolen socks for practice as they protect the feet. It is also well to use a tannic acid or benzoic solution to toughen the feet. Light wool or cotton socks may be worn for racing.

The kind of physique a good cross country man has may vary widely. There have been champions with a great variety of builds. What makes a great runner is not revealed until he is seen in action.

A cross-country man should possess strength and a fair amount of speed

(Continued on page 80)

California students light their own football field



★ With its new installation, Piedmont High School joins neighboring Mt. Diablo and El Cerrito in football under G-E floodlights.

Witter Field at the Piedmont, California, high school is an example of successful, up-to-date floodlighting on a modest scale. The entire cost was carried by the students and a friend of the school. Impressed by the undergraduates' enthusiasm, the Board of Education increased the field's seating capacity to handle the much larger crowds at night.

Uniform illumination, free from glare, is provided by the G-E L-69 floodlight. Installation was simple—planned, ordered, and executed as a standard G-E "144" lighting system.

Free Plans Available—This is "the book" that contains 38 complete floodlighting plans for sports and recreation. One is the "144" lighting system used at Witter Field—144 G-E floodlights on six 80-foot steel poles—complete with a list of all material required down to concrete and paint. Among other plans are tennis courts, volleyball and 12- to 48-lamp softball fields. Ask for it as GET-1284.

The Sports-light—This is the floodlight used at Witter Field—G.E.'s L-69. It gives more light per unit, more light per watt, is easier to install and cheaper to maintain than any other comparable unit. It's so good that four major-league parks use it, so economical that it's the favorite for sandlot softball. Bulletin GEA-4835 gives complete description and prices.



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ADVANCING

The Athletic Institute proudly presents a pictorial review of some of its current major projects illustrative of its far-reaching program, which has as its sole objective the advancement of athletics, physical education and recreation in America.



The Athletic Institute

A non-profit organization devoted to the advancement of athletics and recreation

G Athletics and Recreation

Without profit, these and other projects are conducted as a national service by The Institute. Detailed information regarding any specific Institute activity or project will be furnished upon request to The Athletic Institute, 209 S. State St., Chicago 4, Ill.



The members of The Athletic Institute have never sought any credit or public mention for their support of The Institute's program. An ever-increasing interest in our work however, has created a demand for knowledge of our supporters. It is with pride, therefore, that we publish here the honor list of Athletic Institute contributors.

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 Edwin J. Schoettle Co., Philadelphia, Pa.
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 Sears, Roebuck & Co., Chicago, Ill.
 The Shingle Leather Co., Camden, N. J.
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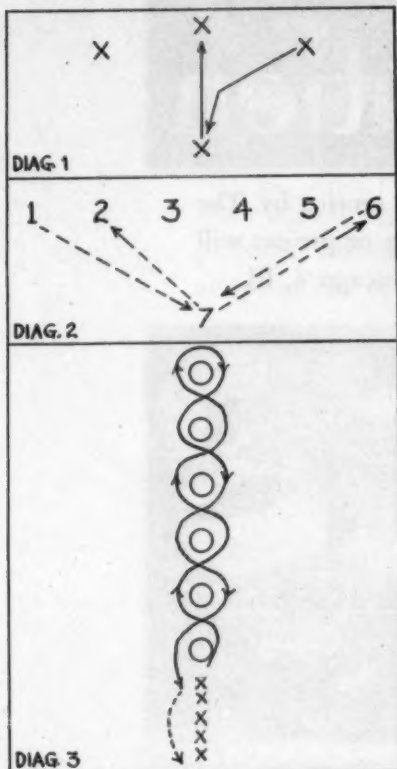
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This seal, the "pride-mark" of The Athletic Institute, identifies its members.

209 S. State Street, Chicago 4, Illinois

for SEPTEMBER, 1949



It is the task of the coach to build a team that will play good basketball. We cannot hope for that team to be any better than their ability in performing the fundamentals of the game. The high school coach must work with the slow boy, the awkward boy, the boy with undesirable habits—all in all he has a real building task. He must develop these boys and yet keep the boy keenly interested in the game and in his own achievement.

I am confident that the best way to teach fundamentals to boys is through a well-planned system of drills. First of all, these drills should be chosen carefully. Of course, we want to use the ones that will correct the defects of fundamentals in the individual. Second, I find it helpful to choose drills that will conform to the system which the coach plans to use as his basic style of play. Third, the drills must consist of such variety that the boys are always eager to engage in them. By all means the element of competition should be injected into the drills. This will pro-

mote a desire to excel on the player's part. He will be getting fun from his work, he will be learning team play, and he will be developing his individual ability.

A coach must keep in mind the physical condition of his players. I have seen my teams go stale at a

EDDIE MATTHEWS played basketball at Goodson High School, Bolivar High School, and the Southwest Baptist Junior College—all in Missouri. He studied basketball with Andy J. McDonald at Southwest Missouri State College. During his four years at Buffalo his teams have won 113, lost 22. His B teams have won 60, lost 6. Last season his team won the state title in Missouri.

certain period of the playing season, usually near the end of the season when the sub-regional and regional tournaments are held. The proper use of drills will prevent this from happening. I believe in using drills well over one-half or two-thirds of

By **EDDIE MATTHEWS**

Basketball Coach, Buffalo, Missouri, High School

Fundamentals and Drills

By **ERNEST G. NEIPP**

Basketball Coach, New Britain, Connecticut, High School

THERE was a time when the basketball coach gathered his candidates about him, selected tentative teams and through scrimmages brought about his first team. It is only of comparatively recent years that the basketball coach has seen the wisdom of developing certain skills through the proper application of fundamentals.

There is no short-cut to the proper execution of movements on the basketball court. Skills and the proper use of those skills can only be the result of many hours of intelligent practice.

The drilling on fundamentals in each practice period definitely presents a challenge to the coach. It is this phase of the game that may easily become a "grind." The coach must present his basic drills in such a manner as to make them interesting. The development of competitive spirit with outward expressions of cheering team mates on will go a long way toward making the daily practice sessions stimulating and productive.

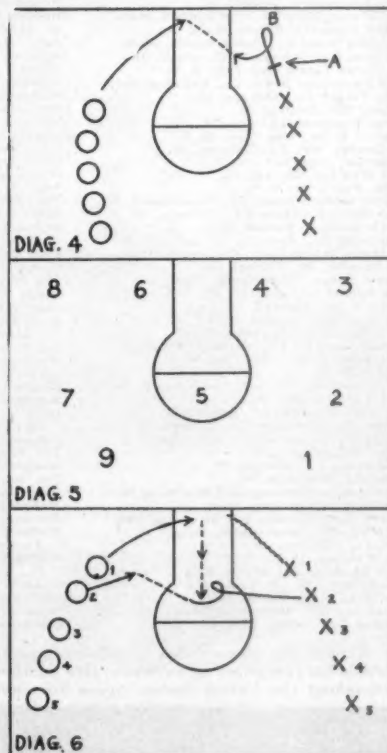
Some fundamental skills for basketball that experts generally agree on are: shooting, passing, catching, dribbling and jumping. I have not attempted to list these skills in order of their importance. There is no agreement among coaches as to which skill is the most important. Pro-

ERNEST G. NEIPP has completed his second year at New Britain after having been away from coaching for a number of years. His '47-'48 team reached the semifinals of the state tournament and his '48-'49 team emerged the winner. His team was defeated for the New England title by one point.

iciency in all phases should lead to many games being chalked up in the win column.

There are no certain drills to achieve the ends desired and so the logical thing to do is to use those drills that will fit into one's own style or pattern of play. There have been

(Continued on page 84)





The PERFECT FOOTBALL

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The New MacGregor Goldsmith Official M5G Intercollegiate Football is perfectly balanced for greater sureness and greater accuracy in ball handling, kicking and passing. The leather in the M5G Intercollegiate is scientifically tanned and waterproofed by a newly developed process. From every standpoint, the MacGregor Goldsmith Official M5G Intercollegiate Football is truly a

piece of precision equipment, designed to give to the game the utmost in passing efficiency; the utmost in ball handling and the highest degree of kicking proficiency. Throw a new M5G on the field and ask your boys what they think of it.

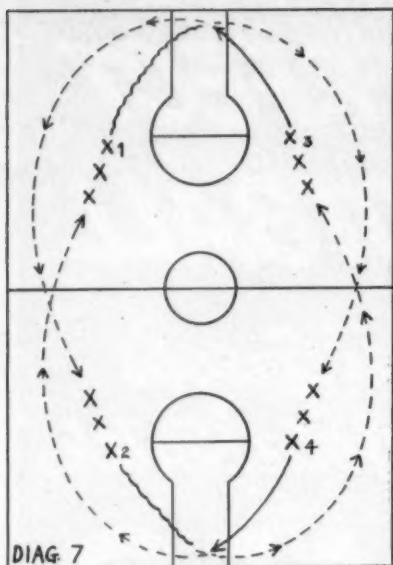
MACGREGOR GOLDSMITH INC.

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JUST THE THING FOR THE "SINGLE WING"



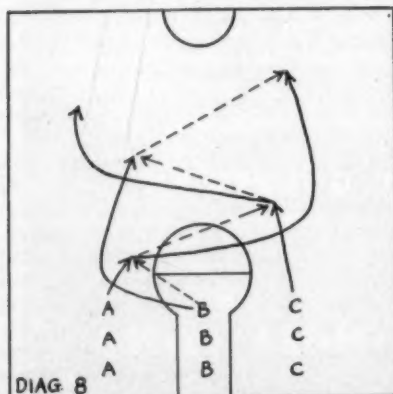


Eddie Matthews Cont.

the practice period. The strain of competition, and practice scrimmage is sure to take the razor edge off the squad sooner or later during the season.

Our high school team last year played a total of 38 games, 20 of which were in tournament competition, and our players reached their individual peaks during the state tournament play. We believe this was the result of our use of drills and practicing fundamentals. We practiced and used drills every practice session of the entire season.

There are many different kinds of drills. The most useful and most helpful ones are not the most difficult. The good, simple drills are the best, especially for high school boys. Each drill has one or more fundamental that should be taught. The athlete should never be permitted to just half way complete his proper movement. The coach should insist and



see to it that each fundamental is properly executed.

Our squad last year was typical of most high school squads. We had boys that needed to learn to pivot, fake, dribble, pass, etc. The following drills were used in our practice.

Pepper Basketball: We use this drill to prevent fumbling and to develop the wrist action of our post men. Two balls should be used. X1 passes the ball to either X2, X3, or X4 and at the same time X2 passes the second ball to X1. This provides much ball-handling and teaches the boys how to catch and pass the ball fast. The "pepper" man, X1, should pass the ball in the air; the other men use bounce passes. This prevents the balls from hitting each other (Diagram 1).

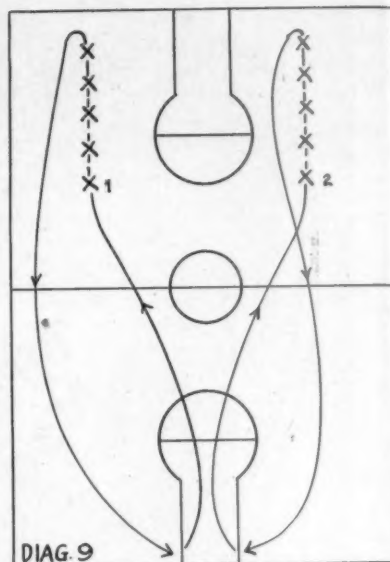
We use the drill shown in Diagram 3 to develop footwork in the dribble. To make a competitive drill of it we use two lines and run it as a relay, particularly when the coach is desirous of improving the speed of his dribblers.

The drill shown in Diagram 4 is used primarily to teach pivoting. The squad members should be lined up in two lines such as line O and line X. A is a feeder, and B is a dummy guard. X1 drives toward B, receives the ball from A directly in front of B. X1 catches the ball with both feet off the floor. As he comes down in front of B he pivots on his left foot all the way around and feeds the ball to O1 who is breaking for a lay-up shot. X1 takes the rebound, passes to A and then continues to the back of the O line. O1 continues to the rear of the X line.

We make extensive use of basketball golf (shown in Diagram 5) to develop our set shooting.

The drill shown in Diagram 6 provides shooting, pivoting, and timing practice. X drives in for a shot; O1 rebounds from the opposite lane and passes out to X2 in the circle. X2, who was behind the shooter, has cut over to the circle to receive the pass from O1. He pivots and passes to the man cutting from the opposite lane (O2). X3 then rebounds, passes to O3 in the circle. O3 pivots and passes to X4 who is cutting, etc. Each man continues to the line on the opposite side of the court after he handles the ball.

The drill shown in Diagram 7 is an all court warm-up and an excellent conditioner. X1 and X2 have the ball. They dribble in for set-up shots, then continue to the opposite side of the court and on to the opposite end of court where they rebound for some



other shooter. X3 and X4 rebound the shots made by X1 and X2 at their respective goals, then pass the ball to the next man behind the shooter which they rebounded from. X3 and X4 then continue to the opposite side of the court and on to the opposite end of the court where they enter the shooting lines. This drill provides plenty of running and shooting practice.

We feel that the three-man weave, shown in Diagram 8, has tremendous value as a conditioner and developer of footwork while moving fast. All types of passes such as bounce, push, shovel, etc., should be used to develop the passing and catching game. We like to break up the monotony of the drill by working in a lay-up shot at the far end of the court with the resultant practice in gaining control of the ball as it comes off the backboard. At the starting end a lay-up shot is used with the next threesome taking the rebound.

For speed in dribbling we use the drill shown in Diagram 9, often using three or more groups. At the opposite end of the court the dribbler must shoot until he makes the shot before starting back. As this drill is primarily to develop speed in dribbling we have found that the best way to prohibit jumping the gun, so to speak, at the time of the exchange is to have the dribbler roll the ball through the legs of the boys in his line to the last man, who then becomes the dribbler. The man who just finished the dribble assumes a position at the front of the line. This drill also provides plenty of knee bending which is good conditioning for the legs and backs.

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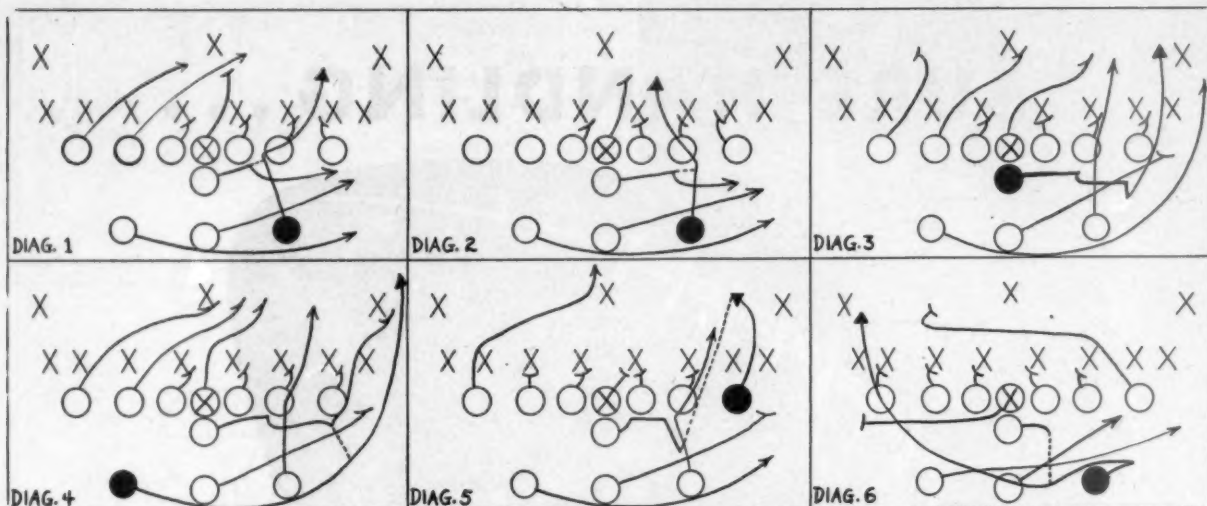
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THE ALL-STAR GAME

By **DON HEAP**

**Backfield Coach
Northwestern University**

The first six diagrams are All-Star plays. Diagram 1 is a veer-buck outside tackle while Diagram 2 is a companion play, a veer-buck inside tackle. Diagram 3 is a quarterback keep play with the quarterback driving off tackle. Diagram 4 starts out the same way but the quarterback laterals to the halfback. Diagram 5 is a jump pass to the end while Diagram 6 is a counter play.

The remaining eight diagrams are plays used by the Eagles. The seventh diagram is the play Van Buren

used to sweep end for the first score. Diagram 8 is a veer inside tackle. Diagram 9 is a fake sweep and quarterback sneak with a trap on the tackle. The Eagles surprised the All Stars by running a few plays from the split T. Diagram 10 is from the split T with the end out and the halfback in motion. This same play is run with the right halfback in motion and the toss is made to the left halfback. Diagram 11 is the Thompson to Pihos pass used repeatedly against the All Stars. Diagram 12 is another pass play to Pihos which scored. Thompson fakes a toss out on a quick sweep. Diagram 13 is a split T play used against a goal-line defense for a score and Diagram 14 is the Eagles' counter play.



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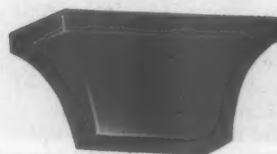
*Patent Nos. 276887 and 2098468

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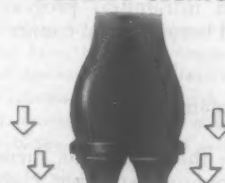
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An Intramural Program for the Small High School

By JOHN E. CALLERY

Coach, Bordentown, New Jersey, High School

THE ONE OUTSTANDING deficiency in all small schools is the lack of personnel to conduct after-school activities for the pupils. This results in a meager program for the non-varsity pupil. When the physical educator is also the coach his afternoons are devoted to this duty and he cannot supervise an intramural program except by remote control. It is for this type of situation that the following program was devised.

The small school has certain advantages not found in the larger school and these should be considered in developing a program. Some of the advantages are: (a) the small enrollment makes it possible for all boys interested in varsity sports to take part. In most cases the coach is so hard-pressed for man power that he retains as many candidates as he can uniform. This leaves a somewhat homogeneous group for intramural participation and eliminates the need for elaborate systems of "weighing" the strength of teams. (b) The school is usually located in a suburban or rural area and has easy access to open fields and playing areas. (c) In some situations it is possible to conduct activities in several adjacent communities by dividing the leagues into two or more sections. (d) The smaller groups do not overtax the capacities of community facilities; such as bowling alleys etc. (e) All boys are well acquainted. By using these advantages the small school can offer as complete an intramural program as its larger and better-staffed counterparts.

Organization

Every boy in the school is a member of an intramural sporting club. He remains in this club throughout his school career and does not change to any other group. Approximately thirty boys makes the most satisfactory size club and the number of clubs will vary as to the size of the schools. An even number of clubs (4, 6, 8) facilitates scheduling and prevents having one team idle. Each club is a complete unit, within itself and competes with every other club in all activities throughout the school

year on a simulated intercollegiate basis. New students or incoming Freshmen are divided by the club managers early in the fall and are notified of their club assignment. After being notified of his assignment the new man may make one change in clubs providing he has the written consent of the managers of the two clubs involved. The new men can be divided at a meeting of the managers or, at a meeting of all new men, where the managers select one man at a time in rotation.

Duties of Club Officials

Manager: He is elected annually by members of each club. He has full charge of the activities of his group and appoints assistant managers, coaches, captains, etc., as needed. His position is that of a director of athletics.

Coach: He is appointed by the club manager for a definite sport. He may be a player or a non-playing member of the team. Varsity players, who are ineligible to compete in intramurals in the same sport in which they play on the school varsity, make excellent coaches.

Captain: He is elected by the team selected to represent the club in a given sport (basketball, etc.). He must be a player and is responsible for having a complete team ready to play as scheduled. He also fills out a report of the contest and turns it in to the league official.

Others: Some clubs have secretaries, publicity agents, scorer, etc. Club records are not official but may serve as a check in doubtful cases.

Boys' Leaders Club

The backbone of this program is the "Boys' Leaders Club". This group

JOHN E. CALLERY graduated from New Jersey State Teachers College in 1935 and took his master's degree in education at Rutgers in 1941. He has taught and coached at Bordentown, New Jersey, High School since 1935.

meets regularly during the activities period and is the governing body or executive board of the intramural program. They appoint the league presidents for each league (bowling league, volleyball league, etc.) arrange schedules, promote new activities, and, in general, relieve the instructor of nearly all details in connection with the program. They are all members of various sporting clubs and act as liaison between the clubs and the governing body. The membership of this club is open to all boys but they must take an active part in the work of the club or they are dropped from the roll.

The league presidents, as appointed by the leaders group, have charge of a definite sport. It is their responsibility to arrange for officials, secure equipment, scorebooks, scorers, etc. They may select other boys to assist them in their duties.

Point System

Two point systems are maintained. One for sporting club standings and one for individual pupil records. All points are accumulated and awards made at the end of the school year.

Club Points are awarded as follows: Team games: for each game or match played 10 points; for each game or match won, 5 points; for each game or match forfeited, minus 10 points; for each championship won, 10 points. Individual activity points: for each contestant, 1 point; member winning first place, 5 points, second, 3 points, third, 1 point. In addition each club is awarded 5 points for each member of their club that plays on a varsity team.

Pupil Points are awarded as follows: Team games: for each game played, 5 points; individual activities: for each event or match, 2 points; for winning first, 5 points, second, 3 points, third 1 point. Bonus points are awarded: to managers, 10 points, league presidents, 10 points, captains and coaches, 5 points.

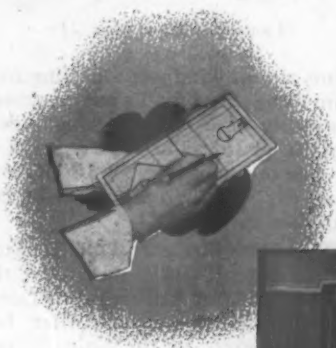
Awards

A. The sporting club accumulating the greatest number of points during the entire year is awarded the Kiwanis Championship Trophy.

B. The sporting club winning a league championship in any sport is awarded a small homemade plywood plaque on which the sport and the names of the winning team members are burned. These plaques are fast-

(Continued on page 80)

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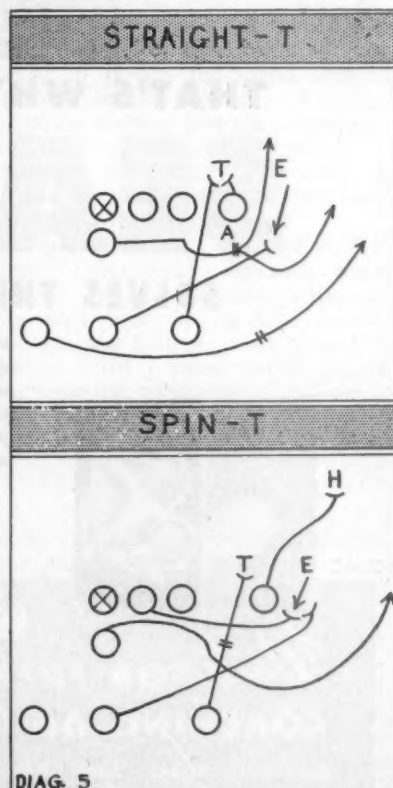
Straight T and Spin T

(Continued from page 24)

ments almost eliminate a pulling lineman. The Straight-T has a strong possibility of using big, tough, slow boys at guard. The guard stays in the line on practically all assignments while the Spin T guards must be fast and able to pull.

VI. In the Straight T the quarterback is an off-tackle threat. In the Spin T he can only run the ends in sweeps (Diagram 4). After faking, his depth in the Spin T prevents this.

VII. On wide plays from the Straight T the tackle is blocked and the end is fooled; in the Spin T, to do the same thing, the tackle is fooled and the end is blocked. This is due to the difference in the fakes of the two formations. In the Straight T the deception is at the line of scrimmage for everyone but the defensive end who must be made to make a sudden choice between the halfback coming around for a lateral or the quarterback keeping off-tackle. With the ability to get another blocker out and by forcing a defensive tackle to play his position, the Spin T can two-time the end (Diagram 5).



DIAG. 5

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VIII. The quarterback from the Straight T can block in many plays but the nature of the Spin T quarterback's duties prevent him from doing any blocking. The Straight T quarterback must be able to do many pivots, block, run, sneak, pass short, and be a good faker and ball-handler. The Spin T quarterback need only be able to sneak, do a few turns, and be a good passer, long and short.

IX. The Straight-T quarterback, being closer to the line, can do just a little better faking with the ball.

CHINK COLEMAN is one of the leading exponents of the Spin T. While coaching at Wentworth Military Academy in Missouri his teams won three junior college titles and one national championship. Before going to St. Mary's he coached at Phoenix College, also in Phoenix, Arizona.

The quarterback in the Spin T must depend on his backs being better fakes — thus the burden is placed on all of the backs. Illustration 6 shows a "quickie" from the Straight T. Illustration 7 shows the same play from the Spin T. Note the deception is farther back. In both, however, the deception straight ahead is good.

These are nine ways that the Straight T and Spin T differ. A coach will find many advantages using either of these formation techniques, depending on the material at hand.

Pass Defense

(Continued from page 15)

six against the T formation and single wing. Diagram 1 shows the way we tried to cover the T.

The left halfback covers the man-in-motion. The safety slides over in front of the offensive right end. The fullback loosens to take the outside of two men with the safety taking the inside.

With a flankered end and a man-in-motion, the right halfback takes the flanking end as shown in Diagram 2. The center takes the man-in-motion until he goes past the flanking end, in which case the right halfback will take him. The center will cover the inside of the two men or the man who waits. The right halfback will cover the deep outside of the two men. The safety will be used as a free agent to help out wherever the pass is thrown.

With the man-in-motion away from the flanker, the coverage (shown in Diagram 3) is essentially the same except that the fullback must cover the man-in-motion all the way. The safety is a free agent and should favor the side of motion.

With a halfback flanker and a man in motion, (Diagram 4) the right halfback covers the flanker or the outside man and the safety covers the end or the inside man. The fullback covers the man-in-motion.

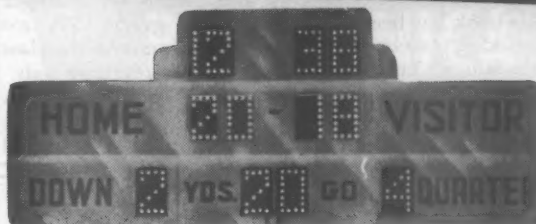
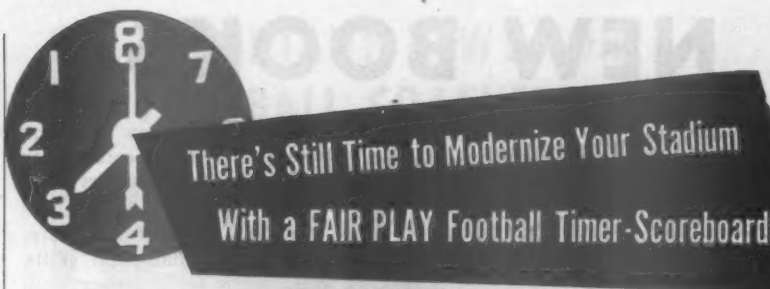
With a single-wing man in motion to the weak side, (Diagram 5) the wingback should be considered as a halfback flanker, in which case the left half would cover the outside man and the safety would cover the inside man. On the other side, the center covers the man-in-motion or the outside man and the right half covers the end or the inside man. The above coverage would also hold true for the left half or quarterback in motion to the weak side. In other words, when the left half, fullback, or quarterback go in motion they are considered as second men out and therefore are covered by the linebacker. All this is based on considering the wingback as a halfback flanker.

With the wingback in motion (Diagram 6) it is just a matter of putting the flanker man in motion to bring about simple coverage. The right half moves out with the man-in-motion and takes the outside man; the safety moves over and takes the inside man.

When a man goes in motion to the strong side (Diagram 7) the wingback should be considered as a halfback flanker. The fullback should cover the man-in-motion; the left half should take the deep outside man between the end and the wingback, and the safety should take the deep inside man.

Results of the John T. Core 100 Club

We have just received the results from John T. Core of his Five Star 100 Club in which school boys "compete" in five events. The first five are: Bob Veitch, Saratoga Springs, New York, High School; Jack Little, Windsor, New York, Central School; C. Richards, Woodrow Wilson High School, Portsmouth, Virginia; Michael Murphy, Fountain Valley School, Colorado Springs, Colorado; C. Johnson, Woodrow Wilson High School, Portsmouth, Virginia.



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without excess weight. It is 22 feet long and 9 feet high (without supports). Units are lighted with 25 watt FAIR PLAY SCORELITE bulbs to give brilliant numerals that can be easily seen from any point in the stadium, even at sharp angles. The Fair Play Figurgram is electrically operated by remote control and is 100% automatic. The lower panel of the board can be easily adapted to form a complete baseball scoreboard.

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NEW BOOKS

Sports Officiating, Edited by Elmer D. Mitchell. Co-authors: Warren E. Smith, Robert J. Antonacci, Earl N. Risky, Howard C. Leibes. Published by A. S. Barnes and Company, Inc. New York. Four hundred seventy-six pages.

The material in this book has been gathered from the varied experiences of five individuals to produce a much-desired book in the field of athletics.

The authors investigate the place of each official and his relationship to the competent administration of an athletic contest. Each of the forty sports discussed includes a brief history and information concerning the governing body. The authors conveniently organize each official's duties under the heading of Before the Game, During the Game, and After the Game, presenting only those rules which involve actual techniques.

This well-illustrated volume of authoritative information places at the disposal of officials, instructors and coaches all the necessary techniques essential to competent officiating.

It is an excellent text or reference for students majoring in physical education and recreation, for instructors of intramural sports, and for anyone who conducts a sports program.

Teaching Posture and Body Mechanics, by Ellen D. Kelly. Published by A. S. Barnes and Company. New York. Two hundred and twelve pages. \$3.75.

This is a textbook written for teachers, parents and physicians. It describes standards of body mechanics and includes the activities through which they may be taught to children of all ages. This text continues where theoretical "corrective" courses usually stop by presenting a preventive program adapted to typical school situations.

For elementary teachers and parents the non-technical presentation and the indexing of games, stunts and exercises will facilitate selection of suitable activities for various situations.

The book is divided into three broad categories: The Importance of Good Body Mechanics; Planning the Posture Emphasis; and Posture and Body Mechanics Activities. The first category discusses the problem in teaching correct posture and the factors influencing posture. The second section explains how a program of posture emphasis may be organized

in larger communities, how co-operation between home-school-community may be achieved, and describes good body mechanics.

The third section includes chapters on teaching fundamental skills, stunts and games for younger children and for grades 3-9, exercises for the gymnasium and the classroom, and many other teaching aids.

The book is illustrated with both drawings and photographs. It is a well-written and well-organized textbook.

Seal-O-San Basketball Coaches Digest. Published by the Huntington Laboratories Incorporated, Huntington, Indiana. Free to all coaches and athletic instructors. All others, 25c.

This is the famous Huntington basketball annual which contains a wealth of information for the coach. Thirty-one famous authors are represented including Bud Foster, Cliff Wells, Adolph Rupp and many others. Details on fundamentals and advanced training techniques are fully illustrated by diagrams and photographs.

We are proud of the fact that seventeen of the articles in the Digest originally appeared in the *Athletic Journal*.

The Kinesiology of Corrective Exercise, by Gertrude Hawley. Published by Lea & Febiger. Philadelphia. One hundred ninety-two pages. Illustrated. \$3.75.

This book provides the essential knowledge of human anatomy and physiology, and of kinesiology and physics. Anyone who specializes in the field of corrective exercise will find this book helpful. The author offers the special training needed to recognize faulty growth and definite malfunctioning, and shows how to ameliorate such conditions.

For the second edition the book has been revised. New exercises have been added for the shoulders and feet.

Guidance Workers' Preparation, by Clifford P. Froehlich and Helen E. Spivey. Published by the Office of Education, Federal Security Agency.

This is a directory of the guidance courses offered at the colleges and universities throughout the country. Such courses as Basic Guidance, Understanding the Individual, Tests and

Measurements, Occupational Information, Counseling, Group Guidance, Mental Hygiene and Related Psychology Courses are included in the directory.

The Handbook on Hammer Throwings, by Raymond H. Greenleaf. Published by Raymond H. Greenleaf. Twenty pages.

This is a pamphlet about the art of hammer throwing written for students and Track and Field enthusiasts. The author begins by sketching the history of the sport and listing the Olympic champions in the event.

Subsequent chapters discuss the regulations, the start, the preliminary swings, the spin, the throw, the rules for hammer throwing, the mental approach and a suggested schedule to follow in training.

The Organization and Administration of Physical Education, by Edward F. Voltmer and Arthur A. Esslinger. Second edition. Published by Appleton-Century-Crofts, Incorporated. New York. Four hundred and nineteen pages. \$3.50.

The authors consider the goal of physical education to be "primarily education rather than health or exercise in themselves." The book begins with the basic problems in the organization and administration of physical education and moves along to consider the many phases of this work.

A partial list of the chapter headings includes: The Relationship of Physical Education To General Education, Aims and Objectives of Physical Education, Administrative Policies and Activities, School Health Education, Interschool Athletics, Intramural Athletics, Physical Education Class Detail, The Purchase and Care of Equipment.

Athletic Memory Book, prepared and published by Westley Lauritsen, Athletic Book Publisher, 723 Sixth Street N. E., Faribault, Minnesota. \$1.00

This book serves as a record of the student's athletic experiences. It is made up in the form of a record book with space provided for football, basketball, baseball, track and miscellaneous sports. Under each sport there is space provided for such things as the name of the coach, assistant coach, athletic director, captain et al.; the date of the game, opponent, where played, score and the squad. Opposite each page there is space to paste photographs or clippings.

Functional Football, by John Da-Grosa. Revised edition. Published by A. S. Barnes and Company. New York. Three hundred forty pages. \$4.00

This is a sound book on fundamentals and the more advanced techniques of modern football. There is not a single phase of the many offensive and defensive skills that is overlooked.

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Quick Reaction Time Means Athletic Ability

By JOHN PATRICK

Coach, LeClaire, Iowa, Public School

AS A RESULT of this study and other findings, the writer concludes that in any athletic activity it takes a player with quick reaction to meet opportune situations. Since this ability is considered to be an important earmark of a good athlete, I have made several investigations in regard to its testing.

The main purpose of this study was to find out just how quick the player's response was to a visual stimulus. This would give a good indication of their reaction time to a play situation, such as in a game of basketball, which depends upon the quick reaction of an individual for a desired outcome.

To determine the reaction time the basketball squad was introduced to visual stimuli which were nothing more than four red lights fastened to a square board. These round lights, four and one-half inches in diameter, were fastened to the board; two at the top and two at the bottom. The lights were numbered in such a manner as to have numbers four and one at the top, and two and three at the bottom. The person to whom the test was given stood twelve feet directly in front of the stimuli board. Placed within easy reach of his two hands were two current breakers. The current breakers were numbered. The one on the left which was controlled by the left hand was number one. The one controlled by the right hand was number two. At his feet were placed two more current breakers, the one the left foot controlled was number three and the one controlled by the right foot was number four.

In order to check the time of reaction, the player took the position as mentioned, twelve feet in front of the stimuli board with his hands and feet on the current breakers. Each light on the stimuli board was directly connected to a button on a switchboard which was controlled by the author. When any one of the buttons on the switchboard was pushed the corresponding light on the stimuli board would light and a machine devised by myself would start. The machine was a vibrator which held a ball-point pen to act as a marker. Under the marker was an upright with a flat glass surface and under the vibrator was a roll of paper two and one-half inches wide. This paper was drawn over the upright and under the ball-

point pen marker by an electric motor, which was also started simultaneously with the vibrator marker. When any one of the four buttons controlled by the author was pushed, the player taking the test would react to the light stimulus by pushing the current breakers that correspond to the light on the stimuli board. This broke the circuit to the light and the machine. For instance, if light number one lit, the subject would react by pushing number one current breaker with his left hand. The time recorded on the paper by the vibrations of the marker would give a good indication of his reaction time for that limb. Since the vibrator had a known frequency of sixty times a second, reaction time could be checked within one-sixtieth of a second.

To determine the reliability and validity of the test the players that reported for the basketball team were all checked for reaction time before the squad was cut. Then, ignoring the results of the test, the best players were chosen for the team. After definitely deciding on the players for the team the results of the reaction test were checked and it was found that the players chosen not only had the quickest reaction time but the most basketball experience and they were more mature than the rest of the players.

The reaction time for each limb was taken five times and the average was used in this study. Then the averages were added and grouped in order of the quickest reaction time. The results of this test are tabulated here:

SUBJECT	REACTION TIME		Years Experience in Basketball	AGE
	(in seconds)			
1	1.48		3	16
2	1.51		3	17
3	1.56		3	17
4	1.56		2	17
5	2.10		2	15
6	2.60		1	14
7	2.90		1	14
8	2.12		1	16
9	2.31		0	15
10	2.41		0	14
11	2.48		0	17
12	2.50		0	14

During the investigation several things were discovered of special interest:

1. Boys with the best reaction time were not only the best basketball players by subjective rating, but were better in other sports where quick reaction was a factor.

2. Potential basketball players have

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The purpose of this book is twofold: First, to provide the active intramural director with a handy reference when he is making schedules and planning new intramural events; Second, to provide professional students in physical education with a basic workbook in this field. It is not generally concerned with actual playing rules and game descriptions, but rather with giving tips about sports and rules that have proved helpful in the actual use of these sports in intramural competition.

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quicker reaction time to visual stimuli.

3. Experience and maturity have a direct effect on the reaction time.

4. Reaction time can be improved by practice and experience. This was based upon the results of the test

JOHAN PATRICK was active in athletics until the war, at which time a service disability forced him to discontinue active participation. He graduated from Kirksville State Teachers College in Missouri in 1948 and this year his team went as far as the finals in the Sectional Tournament.

given before the basketball season and after.

5. Grouping the boys according to their reaction time made for a more homogeneous group for regular physical education and basketball scrimmage.

Quick reaction time to visual stimuli is a good indication of potential ability in basketball. Quick reaction of the player is of the utmost importance. The fast boy, large or small, is an asset to his team. The ability to see and react to a situation quickly has won many an activity where quick voluntary response is a means to a desired end.

Planning the Football Season

(Continued from page 6)

schedule. Twenty minutes is usually average time for a definite drill if it is carried out well.

Monday is the day of rest for most football teams and from our observation it is a day used for going over the game played, for presenting a scouting report on the forthcoming opponent, and for loosening up the boys. It is also a good time to give the boys another play or two and have them run a snappy signal drill. The practice session on Monday should last about as long as the one the day before the game.

On the other hand it has been our experience to watch coaches use Monday as a day to scrimmage reserves who did not get into the game. Sometimes excellent prospects show up in these Monday scrimmages who may well fit into future plans.

Scrimmages are usually held on Tuesdays and most coaches work the boys hardest at that time. Some schools, on the other hand, never scrimmage during the regular season.

Wednesday is a good day to polish pass plays, defensive skills and special plays for the game coming up.

Thursday seems to be the best day of the week for dummy scrimmage, good signal drills, punt returns, pass defense, and for reviewing the defense of the week.

Friday, the day before the game is played, is best spent in loosening up exercises, a final review of offensive and defensive maneuvers against the coming opponents and a snappy signal drill. The last practice before a game should never be a long one. The big thing on that day is to keep the enthusiasm high. One coach we know even has a loud speaker playing marching music while the men

run through their signal drills on the day before the game.

Recently we heard a logical reason why punters should work out at the end of practice sessions instead of at the beginning. In a game they are working hard anyway and are rarely fresh when called upon to punt, so to simulate game conditions they should punt at the end of the drills.

In early season most coaches like to give about two or three plays a day, usually basic ones. Giving the boys a variety of trick plays at the start of workouts in the fall is not satisfactory as the boys are somewhat stiff and do not handle a ball as well then as they will later on.

Skull sessions and visual aids come in for much attention during the start of the season and one factor is important: the players should be made comfortable during skull sessions and when visual aids are shown. There is a tendency for coaches to jam the boys into a hot, stuffy room and to expect them to pay 100% attention to the lectures.

Visual aids are very important if presented correctly. It must be remembered that they serve three purposes: to introduce a subject, to study a subject and to review a subject. Before a film is shown the boys should be told what to watch for most.

As the season progresses the coach should pick out the team's weak spots and put extra emphasis on them since they will usually be noted by the scouts of opposing teams.

From what we have been able to gather it seems the best time to plan the week's work is during the week-end after the coach has spoken with his scouts. I have even heard of some coaches who have their own teams

scouted to determine its weaknesses. Talks with scouts are the key to planning many coaches' schedules.

Calisthenics for Backs

(Continued from page 8)

One man tosses the ball between the other two and they fight for it. The timid boys should be mixed with the tough ones.

All backs are taught to start pumping their legs (stationary running) as the intended pass-receiver approaches and then to cover him at about $3\frac{1}{2}$ to 4 yards. If they cover any wider than that they will be too far away from the man to move up in time to break up the pass — especially if the man cuts in.

On spot passes the man should bring his arms down around the pass-receiver in such a way as to force the latter's arms apart. This often causes him to drop the ball.

Pass Defense Strategy

The first thing we require our defensive men to know is the situation. If it is a passing situation and yardage is long we have our men cover very loosely, encouraging the pass to be thrown in front of them. If it is a passing situation and the required yardage is small our defensive men are in tight and cover about two yards from their man.

The next thing we stress is that the halfbacks and the safety man watch the opposing linemen. As soon as one of our men spots an ineligible pass-receiver crossing the line of scrimmage he immediately shouts, "run". As soon as the other backs hear the word "run" they shout it and move up into the play. If the word "run" is not heard all the backs are alert for a pass.

As soon as the ball leaves the passer's hand we want every man to leave his zone and fly towards the ball. In case we make an interception on the play the first man that arrives on the scene blocks back on the man the pass was originally intended for.

If the offense sends out four men they should be covered close. If they send out only the ends they should be covered more loosely as it is likely to be a long pass. If two pass-receivers run out and cut in toward each other the pass-defenders should yell "flare in" and exchange men.

When a pass play develops the line-backers come straight back in their zone to cover.

A five-man line is used when there

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is a pass situation. A five-man line is usually used on first down, third down and on long yardage situations.

We go over our scouting reports and try to match our defensive speed with their offensive speed. During the week when we practice pass defense, we keep shifting the pass de-

fenders around so they will be able to play any position.

We still believe that the best pass-defense is a hard rushing line with every man imbued with the idea that if he fails to prevent the passer from getting the ball away it will result in a touchdown.

Analyzing the Shoulder Block

(Continued from page 16)

and shoulder in its strongest position and prevents knocked-down shoulders to some degree.

The free arm is often overlooked in the shoulder block. Nothing prohibits the use of this arm as a means of recovery and it may be used on the ground at all times to stabilize the block.

In summary, the emphasis is placed on keeping the head up, eyes open, back straight, tail low and the body squared. The lunge itself should be made at thigh level with a movement upward the instant after contact as though sliding up into the midsection.

Footwork

The most important step in teaching the shoulder block involves the footwork. Coaches often neglect to watch the foot position upon contact. Though this phase of the shoulder block is questioned by many coaches and many contrary methods exist, I would like to explain one method and discuss this method briefly.

After the initial drills involving the lunge, the player should be placed one foot from the bag but cautioned to have his foot on the side of his shoulder he is using slightly back rather than parallel or forward. The lunge is then made by driving hard off the outside foot with the back foot coming up at the moment of contact. At the instant of contact, the foot and leg on the side of the shoulder being used should drive back and down into the ground. Presuming the blocker is using his right shoulder, the snap of the right leg begins what is known as the interaction of muscles. This interaction propels the body forward and concentrates still more power and strength in the upper trunk and left leg. This motion is the beginning of the follow-through, one of the most difficult things to accomplish in the shoulder block. Also, this position of the feet leaves the blocker in position to come up and out with the leg he initially

drove off of, placing him in excellent body position to begin his drive laterally. No one denies that it is more desirable to move an opponent one yard laterally than it is three or four yards straight back.

I would like to point out that the shoulder block described here should not be confused with an in-the-line shoulder charge. It was my purpose to describe only the semi-close or open-field shoulder block. Emphasis is placed on this type of footwork because I feel that leg position, if wrong, can do damage to the blocker's shoulder and body. If the foot on the side of the shoulder being used is on the ground and the opposite leg is off the ground at the instant of contact, the blow has a terrific shearing force to the body as very few muscles are in a position to act as shock absorbers and a follow-through in the direction desired is difficult to attain. Moreover, if both feet are on the ground at contact it is difficult to utilize the maximum amount of muscle interaction and follow-through.

Though at first the stress on the footwork seems confusing to the player, once he has mastered the ability to time his footwork perfectly from the close-up position to the bag he will not encounter too much difficulty when he is moved back two or three yards, or is made to run into a swinging dummy which emulates a moving target. Once the close-up technique is mastered, it is not difficult to run at full speed at the dummy or live bait and time the charge so it is made off the outside foot.

In charging an opponent, Coach Jones emphasized that the feet should never draw together but should remain the same distance apart as the stance assumed before the ball is snapped. The most important thing to remember concerning leg position, besides keeping them well spread, is to keep the knees out rather than straight down. Never will a player fall on his side during a block if he keeps both knees pointed out while blocking. After a missed block, re-



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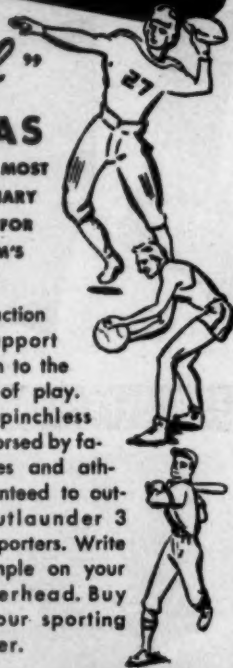




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covery from the belly with both legs in a frog position is instantaneous and directional compared to a football player on his side trying to get up and back in the play.

In keeping the knees out one is almost forced to keep the toes out and the heels slightly in. Many coaches emphasize keeping the toes pointed straight ahead, arguing that this gives speed. Others like the heels in and the toes out because it allows the entire leg to function about the knee joint as it should with no unnecessary strain on that area. Their point is that a weight lifter works his legs on an even plane rather than through a pigeon-toed movement and that a football player should do likewise. I believe it is important to remember that, physiologically, there should be a wide abduction and outward rotation of the hip joints at all times to adequately square the back and place the blocker in a low charging position. Theoretically, the toes must be pointed out along with the knees or a rotation of the femur is caused which throws the muscles of the hip out of line and causes the

muscles of the leg to pull at a disadvantage. If the foot and toes are kept pointed out and in normal alignment to the lower and upper leg I am sure that they are then in a natural rather than an unnatural position.

Perhaps the best point one can learn from lifting weights is that it is much easier to lift a heavy weight from a semi-crouched position than it is from a deep knee-bend. In blocking with the shoulder it is imperative never to be caught (even in the line) at the instant of contact with either leg bent more than at a right angle. When an irresistible force meets an immovable object the blocker has the best chance of at least cutting the opponent off from the path of the play if his legs are in a position to flex. The player must never underestimate his opponent's charge and get caught in a so-called duck-waddle position. Rather he should have his legs always at a ninety degree angle or greater at contact to be able to exert maximum power from his leg muscles and knees of his follow-through.

Offensive Scouting

(Continued from page 20)

also check over the material, classifying and analyzing it, and writing a short summary on it while it is still clear. Later, he should purchase some recent newspapers to get a summary of the game, as well as to check for game pictures and for game statistics. He should talk to other scouts, coaches, reporters, and chance acquaintances after the game. Oftentimes idle chatter can reveal inside information not otherwise available to the scout.

The scout should have a final report ready to discuss before the squad on Sunday or Monday, and a summary report in the hands of the coach for mimeographing.

After information has been obtained concerning the opponents, the scout should take charge of the work, throughout the week, in preparation for the game. He must be prepared to put across information to the players and staff and aid in the organization of the practice program. In order to make the best possible use of the offensive information that he has obtained concerning the opponents, the scout should have diagrams of the opponent's favorite running plays and pass patterns ready for use in teaching the freshmen or J.V.'s on Monday. The relative effectiveness of defenses to be used against

the opponents may be determined somewhat by the success the varsity has against the freshmen.

In testing proposed defenses, the varsity assumes the defense while the freshmen run the opponent's plays against them. This plan may be followed in either dummy or regular scrimmage. The work may be divided up by letting the varsity backfield practice their pass defense against a skeleton team of the freshmen, who are using the opponent's pass patterns. Usually only three or four men are necessary to show the various pass plays the other team uses. These defenses and plays used by the opponents should be rehearsed against the varsity until they learn to recognize them the instant they take form, and are able to adjust to them. If by this means a team is prepared to stop a favorite play of the opponent, which they often use for substantial gains, then one of the opponent's best weapons is neutralized.

During the week the scout must be prepared to talk at least twice to the squad. During the talks he should go over the summary scout report emphasizing the ability of the personnel and the opponent's team as a whole. As a part of this talk, he

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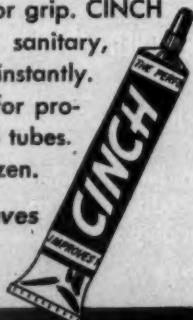


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should show all or parts of the movies of last year's game to reacquaint them with the type of play used by the opponent, and to point out various individuals still playing for them. Possibly, Monday and Friday afternoons would be the best time for these squad meetings.

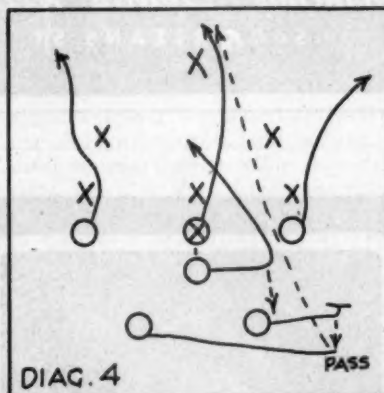
A scout should also keep the player's bulletin board filled with pictures, clippings, favorite plays, and comments on the opponents. If the home team seems to be too confident, articles stating the strength of the opponents and how bad they intend to beat the scout's team would not be amiss.

The scout often makes the final use of his information on the opponents during the game between his team and the one he has been observing. At this time, he usually sits high in the press box, and with the aid of an assistant, relays vital information by either phone or messenger down to the bench. This information concerns both the activities of his own and the opponent's team. Since the scout is usually well acquainted with all phases of the opponent's play, his suggestions and advice can often be made use of by the coach during the game and at half time.

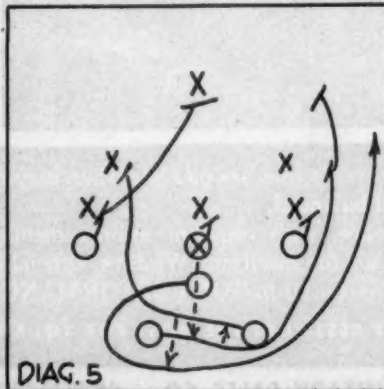
Six-Man Strategy

(Continued from page 44)

long pass is usually good. In Diagram 4 the play starts out looking like Diagram 3 but develops into a pass. The right tailback has to be a good blocker at all times using a shoulder block. On this play the pass



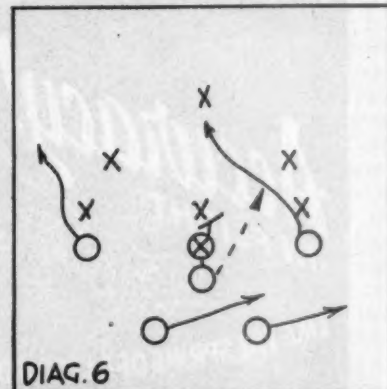
goes to the center who is about twenty yards down the field. The center is an important man on all pass plays



and should be used as a potential pass-receiver.

On the thirty-yard line a good trick play such as shown in Diagram 5 should be used. The ball goes through the quarterback and to the left tailback who starts out to the right and hands the ball off to the right tailback. In the meantime the quarterback makes a small arc starting to his left, comes around, takes a short lateral from the right tailback and skirts right end.

When two or three yards are needed for a first down and the backs are not playing up close, a short shovel-pass from the quarterback to the right end is good. In Diagram 6 the ball is

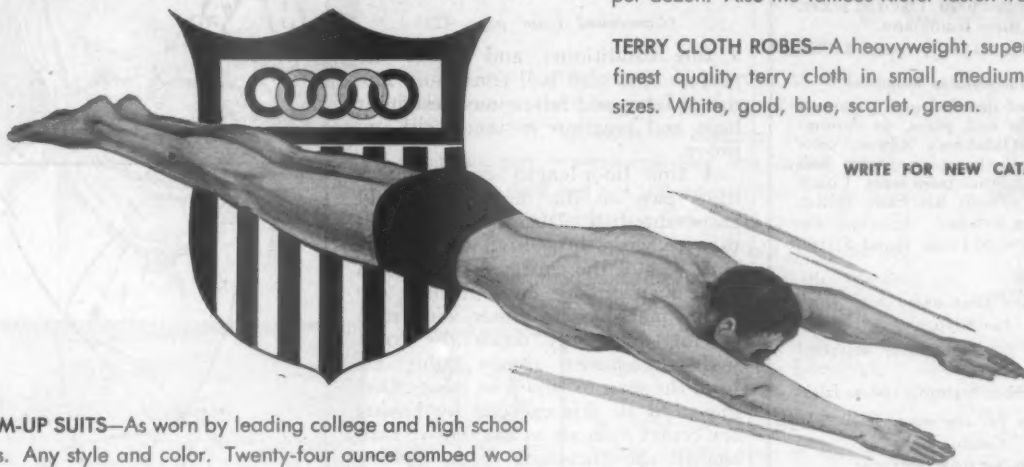


passed to the quarterback and a quick pass is made.

A winning team must have a good running and passing attack plus a mastery of all the fundamentals of football. The team should be well-informed on various types of defense and the coach should have his set of plays balanced to take care of any defensive set-up. The coach should always have a plan of attack for the quarterback in each and every game based on the coach's previous knowledge of the opponent. During the

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game the quarterback alone is the strategist—using the knowledge gained from following the teachings of his coach.

Basketball Fundamentals

(Continued from page 42)

a fine conditioner and makes the players alert and ball conscious. The use of fakes and feints may be taught here and reaction to them will improve.

A fine floor-length drill using a short pass on the move is the old grapevine drill (Diagram 5). We set this up with three lines behind the end lines of the court. Starting with three men on one end, we have the center man pass to either wing man cutting diagonally down the court with the passer always going behind the man to whom he passes. One may add to this exercise by having the center man act as a defensive man against the oncoming three, making them slow up before taking a shot.

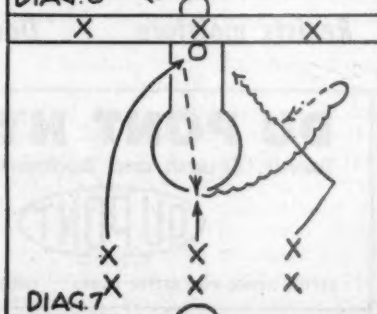
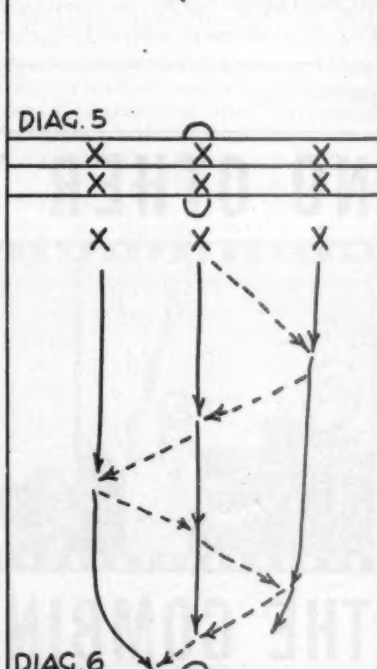
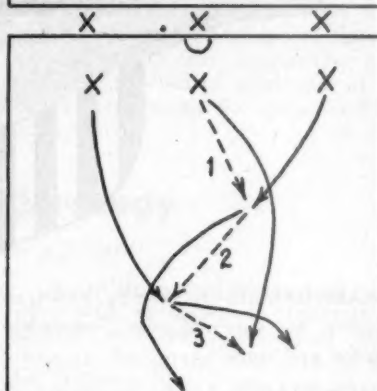
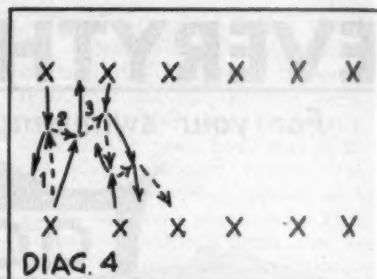
The next pass of importance that we use in our system is the push pass. It is used when we pass to a free man going into a scoring area and to a man moving away from the passer, such as in quick-break developments. This pass is a two-hand pass thrown from the chest and it is aimed to be taken shoulder high as in catching a football pass. We like to have this type of pass thrown on the move and use a floor-length drill to develop it (Diagram 6).

The hook pass in our style of play is used sparingly and mostly to get out of trouble. It is used when we wish to pass back to a trailing man or to get the ball into the clear and out of a congested area. Footwork is important in using the hook pass and we like the passer to make a half-turn pivot in the air on the jump and land with his feet spread in good balance so that he can cut as soon as he lands. The arms should move in a circular motion that brings the passing arm high above the head so that it brushes the ear. The ball should be released off the finger tips. It is important for the player to turn his head around during the air pivot to pick out the receiver. It is also important for him to keep his passing arm straight to insure more height: a softer pass results with a roll off the fingers than with a bent-arm throw (Diagram 7).

Try the Short Punt

(Continued from page 36)

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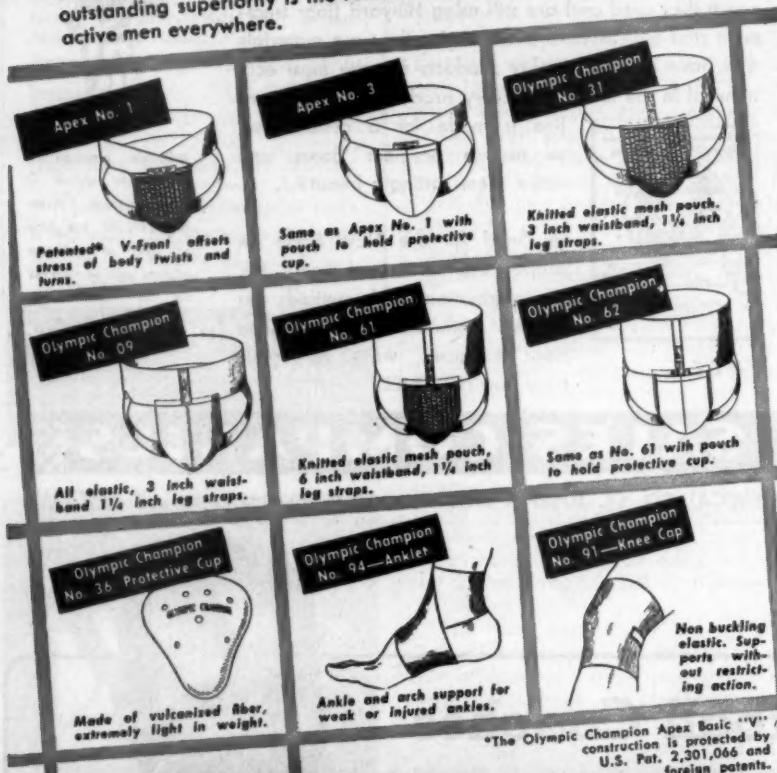


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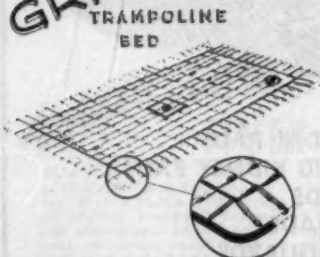
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learn the various weaknesses of all defenses, major and minor. In a game our quarterback always designates the defense and if it is not a 6-2 or a 5-3 we will have automatic plays designed to make a bed patient out of that particular defense. This method has proven to be more effective to me than diagramming a lot of plays against various defenses.

If for no other reason, I hope that coaches in the small high schools with limited squads may receive some helpful information from this article. Until we get some football material like the T formation coach I mentioned, we are going to keep on enjoying fairly successful seasons with the short punt formation.

Intramural Program for Small High School

(Continued from page 60)

ened on the wall of the gym.

C. Individual awards are made to each boy after they have accumulated a total of fifty points. These are small "Velvetex" emblems. Chevrons are awarded for 200 points and a medal for 500 points. These points are accumulated throughout the boy's high school career.

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Promoting and Coaching Cross Country

(Continued from page 50)

but the primary requisite is stamina or staying power. The foundation for these qualities lies in a sound, strong heart, large vital (lung) capacity and good heat elimination equipment. The quality of musculature is of greater importance than the size. Heavy, bunched muscles that add weight and impede the freedom of movement are not needed. In general, a man of medium height and weight, between 130 and 150 pounds has the advantage. Heredity plays an important part. Also, the early life of an individual is a predominant factor in preparing the body for stamina.

ina. Boys from the rural communities and the city paper boys who are accustomed to running their route are the best prepared for exercises of endurance. Glenn Cunningham took up running to rebuild his badly burned legs; Don Lash and Arch San Romani ran great distances going to and from school; Chuck Fenske and Walter Mehl developed their endurance while delivering papers. Paavo Nurmi ran five miles back and forth from his place of work; Gil Dodds developed his endurance tending his trap lines; Greg Rice developed his endurance on the fields and roads of Montana. All the great distance runners had a background of endurance work of some sort in their youth.

The cross-country runner must have ambition, courage, confidence, determination, good pace-judgment and a knowledge of racing tactics. Courage stands out among all other attributes, a special kind of courage that defies fatigue. This may be acquired through training and competitive experience.

Technique

The law of learning, "To Learn by Doing," applies here. The way to learn to run is to run. While sprinting ability is largely natural, distance running is mainly acquired.

There is an advantage in being well-versed in the fine points of this sport early. The feet and legs must be nursed with utmost care. Success in this sport means months of careful training, hard work, good food, and clean, temperate living.

Because of the rough course over which cross country races are run it is sometimes extremely difficult, particularly for beginners, to prevent the arm and leg muscles from becoming stiff and tense. It is not the smooth cinder track on which an even, regular stride comes without effort. Instead it is a coarse country road, sometimes hilly, sometimes level and sometimes dented with ruts or strewn with rocks and pebbles.

In the *technique* of cross country running, one of the most important points to be emphasized is relaxation of the muscles of the body so as to permit natural circulation and respiration. Breathing should be deep and regular and in rhythm with the stride. One should try to develop a four-stride cycle of breathing; inhaling while taking two strides and exhaling while taking two strides.

The runner should try to develop an easy, natural stride. The stride should be made principally from the knee, not the hip. The lower leg should swing like a pendulum with

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no high leg action. The effort should be made from the hip down. The stride should not be too long and should be kept well within the strength of the individual. The aim should be to run close to the ground with a loose, gliding, easy gait. There is less reach, drive, and spring than in the stride of the shorter distance running. The landing should be lower on the foot, the heel touching the ground on each stride with the knee dropping forward quickly to produce the falling stride. One should try to cultivate the relaxed ankle on landing to avoid lifting the body.

The arm action is less vigorous than in the shorter distances. The arms should be carried low and relaxed. They should help maintain the balance of the body. There is rhythm of movement that should be maintained between leg and arm action. The shoulders and arms set the pace of the legs.

The body should be bent forward slightly from the hips, so that the center of gravity will be over the feet, just beyond the balancing point, as the drive is made in each stride.

The runner should learn to clear obstacles without wasting time and to judge pace accurately. The first and last mile are generally the fastest. Settle down into an even pace during the body of the race.

In going uphill the runner should lean forward, shorten his stride and try to keep his body above his feet, with his knee slightly bent when the foot contacts the ground. In going downhill he should straighten his body, lengthen his stride, and speed up the pace. He should cultivate the art of coasting by resting on his heel in each stride. He should try to govern his pace so that he is putting the same amount of energy in hill running as he is on the level.

Racing Tactics

The prime requisite of cross country running is stamina—the ability to economize on energy and power. This is a long drawn out agony and the runner should remember to keep enough in reserve to finish at a strong pace. If one makes this part of his daily practice he will find that he will automatically store the necessary supply of reserve energy. John Zola, one of Wisconsin's best cross country runners, when asked how he planned to run a race, expressed it expertly by saying, "I plan to stay up with the leaders for the first mile, sleep through the body of the race, and then wake up and race the last

mile." At the start it pays to get off fast to get clear of the ruck and then drop down quickly to the body of the race pace. The runner should run the first mile a little faster and yet stay within his ability.

He should learn the pace that he can maintain and learn to judge the pace at which the race is being run. The gait should be mechanical and rhythmical.

It is generally best to maintain an even pace throughout the body of the race. The runner should avoid jockeying and disguise his weary feelings as long as possible, remembering that his competitor might be feeling more distressed than he is. If he is behind he should pull gradually. It is a good practice to try to break the tenseness of the legs by occasionally running lower on the feet and the tenseness of the body by changing position—leaning forward or backward and relaxing the arms by lowering and swinging them in a circular motion occasionally during the race. If the runner is out in front he should run with judgment and try to stay there.

Training

There should be a long preliminary period of training from four to six weeks. The first three weeks should be about the same, consisting of alternate jogging and walking over a distance of two to three miles on turf, if possible, to avoid sore legs. By this time the runner should have acquired the confidence that he can cover the distance at a slow pace. The fourth week some judgment of pace should be acquired by running half the distance at pace; or running the first and last quarter of the distance at racing speed and the middle half at an easy pace.

Each day's warm-up should include twenty minutes of jogging, walking, striding, and practice on form as well as body building and stretching exercises. Particular attention should be paid to strengthening the abdominal muscles.

The method of training is much the same as for the mile and two-mile except that more emphasis is placed on endurance and less on speed. Wind sprints should not be overlooked. A competitor should not compete or run his distance at top speed oftener than once a week and that should be in competition. To avoid monotony the runner should try to practice in company with others as much as possible. The practice work should be made interesting by having several different courses and by in-

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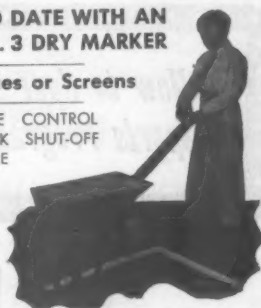
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Fundamentals and Drills

(Continued from page 54)

hundreds of drills diagrammed in books and articles that are excellent; therefore, with a bit of research the

coach of today can select or devise those drills which seem to fit his needs and purposes best.

No implication is intended that the following drills are in any way original, but are some of the drills that the writer has found to be helpful in his situation.

It goes without saying that if a team has difficulty in making short and long shots, it will have a difficult time winning games. Whatever drills are used, the correct form should be stressed and checked at all times until the proper motions have become established as a regular habit.

Game of 21: Long shots count two points and short shots count one point. Players must shoot from behind the free-throw circle, follow and then shoot the short shot at the point of recovery. Should the player make both long and short shots, he continues until he misses either one of the shots.

Basketball Golf: The "tees" or positions should be designated by the coach wherever he feels will be the spots from which his team will get the majority of shots under actual playing conditions. The object of this drill is to make the "9 holes" in the least number of shots. The player shoots until he makes the basket, then the next player shoots until he is successful. There are a number of variations that the coach may work out with this drill (Diagram 5).

During the early season practice, much time should be spent on stationary drills to develop proper technique and then gradually work into moving drills to perfect the passing and catching skills desired.

For the stationary drills the coach may divide the squad into equal lines facing each other at about 15 feet apart which should provide the coach with ample opportunity to instruct, observe, and correct his squad in the use of basic passes. Special emphasis should be placed on the type of passes most commonly used by the team.

Three-Man Weave: A very common drill that is a good conditioner as well as one for proper passing and catching is the three-man weave (Diagram 8).

The drill should start at a slow tempo using half the court. As the distance and speed is increased, the full court should be utilized. The coach should see that the proper execution of the passing and catching fundamentals are not sacrificed for speed.

Three players, A, B, and C, line up at center court about ten feet apart. B, the center man, starts the drill by passing to A, the man on his left who has cut diagonally in front of him. B then cuts behind A to get into posi-

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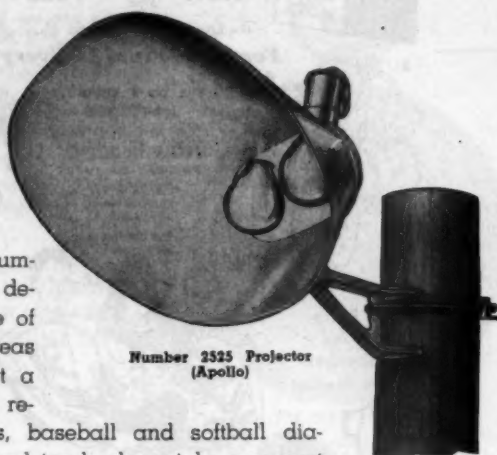
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tion for a pass from C who has in turn received a pass from B. As each man passes he cuts behind the player he has passed to. The ball is moved forward in this manner until a lay-up shot may be taken; the shot is followed and returned to the next in line. There should be no loafing in returning to a position in line to await their next turn.

There are a number of variations that may be worked in. One line may be designated to take the short shot, another line to follow-up the shot, and the third line instructed to receive the pass out.

This drill may also be worked with four and with five men; however, the more men used, the more complex it becomes.

Split Vision: This drill, in addition to passing and catching, also offers practice in the ability to observe more than one action at a time (Diagram 2).

Seven men are used with two balls. Players 1-6 line up in a straight line with player 7 out in front facing them. Player 7 has one ball and player 1 has the other. As 7 passes to player 6, player 1 passes to 7; player 7 then passes to player 2 as player 6 returns a pass to player 7, and so on to each player. Players take turns in the number 7 position.

Dribbling

While the use of the dribble in actual games is somewhat limited by many coaches, it, nevertheless, is still regarded as a major weapon to be used under certain conditions. Therefore, time spent on this phase of basketball may well pay dividends in some games.

Obstacle Dribble: A line of players is placed about eight feet apart. From a starting line, the balance of the team takes turns dribbling in and out among the stationary players. In the beginning no attempt is made by the stationary men to deflect the ball as the dribbler passes. This variation comes after the players have shown some proficiency in dribbling (Diagram 3).

The drill starts at a slow pace in order for the coach to make suggestions and corrections. When the rudiments have become established the tempo of the dribble is increased.

Speed Dribble: The squad is divided into groups which line up at one end of the floor. The front man dribbles as fast as he can the full length of the court using only the right hand, and on the return trip using only the left hand. His last dribble should be a bounce pass to the next man in line (Diagram 9).

A major factor in the ability to jump well is timing. With proper timing a player may out-jump another who has the ability to get higher off the floor.

Jump Ball: The group should be divided into squads of three as evenly matched in height as possible. One player acts as the official and tosses the ball up between the other two. The jumpers should be instructed to tip the ball in certain designated areas. Use of finger-tip control should be emphasized.

Tap-ins: Two players should take positions on opposite sides of the free-throw line with a third player at the free-throw line.

The player at the free-throw line purposely misses the basket for the other two men to follow up.

Every coach is confronted with the problem of interest whenever drill work is undertaken. The boys are anxious to scrimmage, to compete; therefore, it is our responsibility as coaches to be ingenious enough to so plan and arrange our practice sessions as to make them interesting and thus create a desire in the players to develop the proper habits. The teaching of fundamentals is the teaching of certain actions until they become habits.

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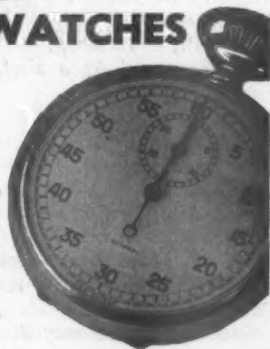
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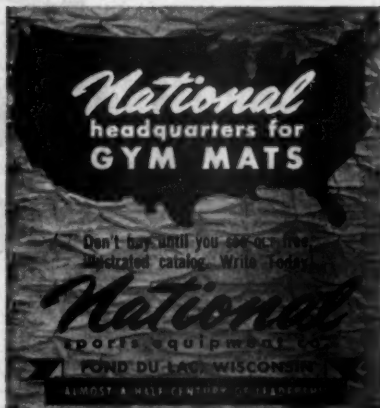
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From Here and There

(Continued from page 4)

played football at Ouachita College and coached at Arkansas College, Batesville, Arkansas. Brenner played college football at the University of Pennsylvania, pro football at Shamokin, Pennsylvania and pro basketball with Williamsport, Pennsylvania in the Eastern League A comparison of the receipts from state basketball tournaments in Michigan since 1930 shows an interesting curve. Prior to 1945 the highest figures were for 1930 and 1944 with \$15,000 and \$19,000 respectively. In 1945 the receipts were \$22,116; in 1946 — \$37,478; in 1947 — \$46,682; in 1948 — \$48,958 and 1949 — \$58,703.

• • •

The following bit of verse was sent in by C. V. "Red" Money, Athletic Director at Northern Michigan College of Education, Marquette, Michigan. His post script: "With all due apologies to Bill Shakespeare and Hamlet."

A COACH'S SOLILOQUY

To smile, or not to grin;
that is the problem:
Whether 'tis easier on the mind
to give vent
To the stings and quirks
of belated circumstances,
Or let off steam
against an avalanche of set-backs
And by shouting drown them?
To win, — to sleep, —
Just once; and by a siesta
to put aside
The disappointments
and the rebuffs
A Coach is heir to, —
'tis a situation
That hath possibilities.
To win, — to sleep, —
To sleep! Maybe even dream!
Brother, there is the catch;
For in such state
what silly ideas may develop,
Once he has flung aside
these worldly attachments,
Must stop and think.
There's the joker
That takes the joy out
of a mentor's life;

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the injury to pride,
The aches of misplaced faith,
the fickleness of Fate
The official's errors,
and the slaps
That impatient fervor
of the worthy takes?
When he might his predicament
vastly change
With a victory or two?
Who would such burdens bear,
to screw and twist
on the coach's hard bench,
Were it not for the fear
of season's end,
And that discarded oblivion
from whose confines
Few character builders return,
jumbles the picture
And makes him face practice
with its old ills,
Rather than skip to new ones
he knows not of?
Thus the sense of duty
slows him up;
And thus the first flush
of resolution
Is throttled to a trickle
by meditation,
And this winning anticipation
is muffled,
As the dream clouds drift away,
dawn approaches, —
Stark reality encompasses,
this human form!
Soft, you now!
the same team approaches,
And another practice
for the next game —
Awake!

E. P. "Chink" Coleman, former football coach at Phoenix College has moved to St. Mary's High School, Phoenix, Arizona, succeeding Ed Beinor. Coleman, who was formerly president of the National Junior College Athletic Association, last winter formed the National Sportsmanship Association, an organization devoted to the promotion of sportsmanship in scholastic and collegiate sports throughout the nation. The foundation will move with him to St. Mary's. . . . Smock White, coach at Decatur, Illinois High School retired at the

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FOR the first time since 1946 the Toro Manufacturing Company, Minneapolis, Minnesota, has published a new catalog on Power Mowers. This new catalog is available without charge to readers of this magazine. It contains 28 pages of pictures and descriptions of the complete Toro line of hand and power mowers. Two of these pages describe the rotary scythe, suction lift mowers made by the Whirlwind Corporation, now a Toro Subsidiary. In addition the catalog illustrates snow plows, leaf-raking machines, weed cutters and power rollers.



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IN EQUIPMENT AND IDEAS



conclusion of the spring season after 20 years as head track coach. . . . Jocko Wrenn, former University of Illinois lineman has been named football coach at United Township high school in East Moline, Illinois. . . . Al Lewis, formerly athletic director and coach at Princeton, Illinois, High School, is now football coach at Niles, Michigan, High School. . . . The new Alleman High School at Rock Island, Illinois will have Robert Maloney as director of physical education. . . . Wayne R. Wallis, former football player at Northwestern University, has been named football and basketball coach at Rhinelander, Wisconsin, High School, succeeding Russell E. Leksell who goes to Joliet, Illinois, Township High School and Junior College. . . . Phil Richards, former University of New Hampshire athlete is now coaching football at St. John's Day School, Houston, Texas. . . . Bob Duax, former basketball coach at Hammond Noll High School, Illinois, is now head basketball coach and assistant football coach at De La Salle High School.

1949 N.C.A.A. FOOTBALL RULE CHANGES

Furnished through the courtesy of the National Collegiate Athletic Association. Contents herein may not be reproduced without the written permission of the N.C.A.A. Football rules committee chairman.

The following amendments and clarifications, affecting the 1949 edition of the Official Football Rules, have been approved by the Editorial Committee of the N.C.A.A. Football Rules Committee and become effective immediately. August 1, 1949.
W. J. Bingham, Chairman

EXAMPLE: 7-1-3-a indicates Rule 7, Section 1, Article 3, Paragraph a.

- 2-3-1 Interpolate the words "or running into" after the word "across".
- 2-26-1 Interpolate the word "lower" before the word "leg".
- 3-4-1 In the third line, after the words "fair catch" place a comma and interpolate the following: "or an accepted penalty for interference with an opportunity to catch a kick".
- 3-4-2 In the fourth line, substitute "such foul by Team B" for "a foul by Team B".
- 3-4-2 In the last sentence, after the word, "foul" interpolate: "(other than interference with an opportunity to catch a kick)".
- 3-6-2 Strike out: "when a live ball becomes dead after a foul has been declared", and substitute the following instead: "when the game clock is stopped to exact a penalty".
- 3-6-4 Amend the last sentence to read "If such time-out was initiated by illegal delay or was declared while the game clock was running, at the Referee's discretion to award Team B a first down".

1949 N.C.A.A. FOOTBALL RULES Cont.

the Referee shall signal 'start the clock' when the ball is ready-for-play".

- 3-9-2-a In the first line, interpolate "free or excess" before the word "time-out".
- 3-10 Question: During an excess time-out, only one injured player is designated but three substitutes run on field. Then two of those subs leave the field and only the injured player is replaced. What is the correct ruling?
Answer: The mere appearance of surplus substitutes is no violation of the substitution rule and unless they cause illegal delay or violate some other rule: No penalty.
- 4-2-1 Substitute "anything, other than another player, which is" for "the ground".
- 5-1-2 In the second line, after the word "point" interpolate "(for the team to which the ensuing series is awarded)".
- 5-1-5-b For the first four words, substitute: "If, during any down free from a foul".
- 5-1-5-c For the first four words, substitute: "If, during any down free from a foul".
- 5-2-4 In the second line, substitute "is broken" for "ends".
- 6-1-1 In the third line, after the word "team", interpolate "(except the holder of a place kick)".
- 6-2-1-a Substitute the words, "free kick" for the word "kickoff".
- 6-2-1-b Amend the last clause to read: "unless the second free kick is last touched inbounds by a player of that team".
- 6-3-4 Amend to read: "No player pushed or blocked into a scrimmage or return kick lying or rolling on the ground shall, while inbounds, be deemed to have touched the ball unless his hand touched it".
- 6-3-7 Amend to read: "If a scrimmage kick or a return kick goes out-of-bounds between the goal lines, or comes to rest inbounds and no player attempts to secure it, the ball becomes dead and belongs to the receiving team at the dead ball spot."
- 6-3-8 Interpolate a new Article 8, reading as follows: "If a scrimmage kick or a return kick (other than one which scores a field goal) goes out-of-bounds behind a goal line the ball becomes dead and there belongs to the team defending that goal line."
- 6-4-1 In the fourth line, after the words "neutral zones", interpolate: "and in the field of play".
- 6-4-2 In the last lines, substitute "shall belong to the receiving team" for "shall be put in play".
- 7-1-5 Amend PENALTY to read: "5 yards from spot of foul".
- 7-7-4 In the fourth line substitute "until" for "when".
- 8-3-3 Amend to read: "If a distance penalty incurred during a try-for-point is inflicted, the try-for-point shall be repeated."
- 8-5-3 Delete these words and commas: ", or being legally battered by,"
- 9-1-1 In the PENALTY, substitute "in possession" for "in player-possession".
- 9-1-2 In the PENALTY, substitute "in possession" for "in player-possession".
- 9-3 In the title, substitute "in possession" for "in player-possession".
- 9-5-1 In the PENALTY, substitute "in possession" for "in player-possession".
- 10-1-1 In the first line, after the word "penalty", interpolate "(other than touchback)".
- 10-1-5 In the second line, delete the words "the penalty for" and substitute "penalized" for "exacted".
- 10-1-6 Amend to read: "If an offsetting foul occurs while the ball is in play during a down, except on a second successive free kick out-of-bounds between the goal lines, the ball, when it becomes dead, shall belong to Team A at the previous spot. If such foul occurs after the ball is ready-for-play and before it is put in play, the ball shall belong to Team A at the succeeding spot."
- 10-1-7 Amend to read: "If an offsetting foul occurs after the completion of one down and before the beginning of the next, the ball, at the succeeding spot, shall belong to the team which would have put it in play if that foul had not occurred."
- 10-3-S.P. IX Amend to read: "If, while a legal forward pass is in flight, a team B player commits a foul on or behind the opponents' scrimmage line, the distance penalty therefor, if inflicted, shall be measured from the previous spot. (Declinable)"
- Page 57 To inscription under Signal 18, add "if hand is moved from side to side, touchback".
- R.R. 3 In the first line, interpolate "While time is in" before the words "Team A"

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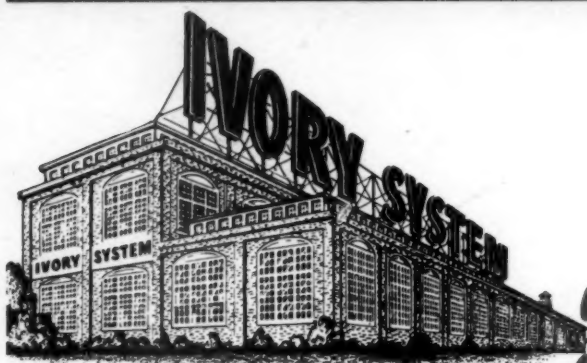
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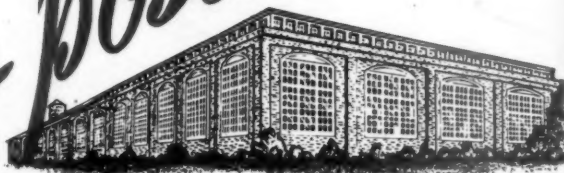
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